UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE -- REGION SIX

MT. BAKER - SNOQUALMIE NATIONAL FOREST

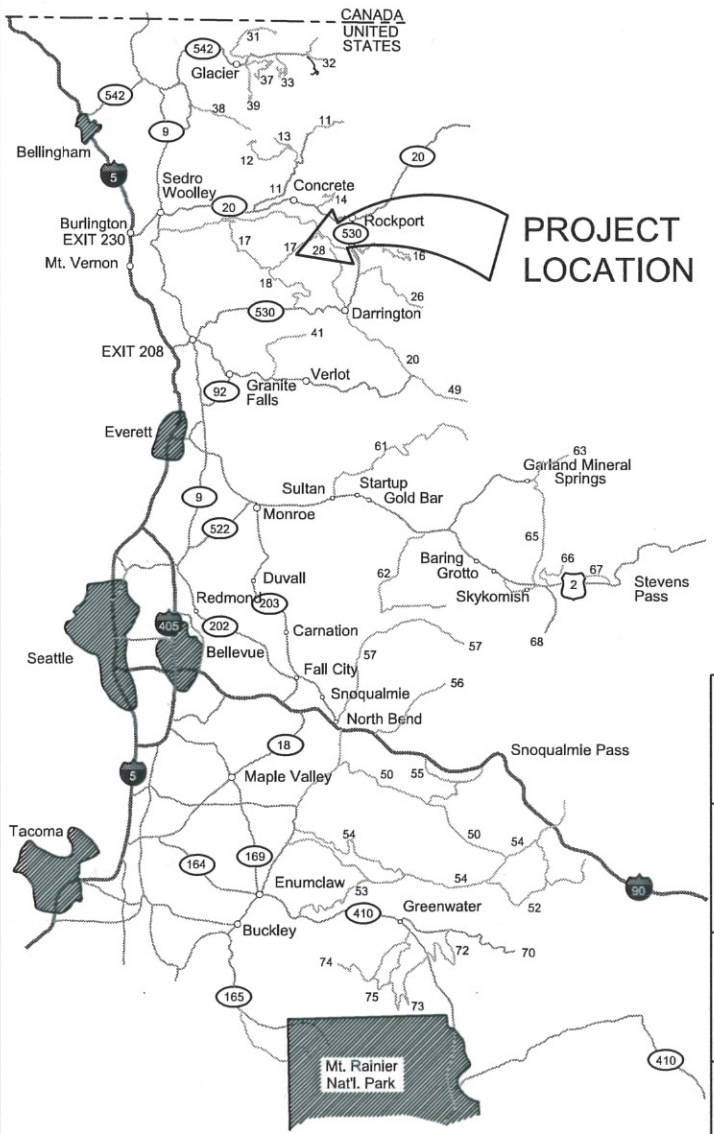
MT.BAKER RANGER DISTRICT

SPECIFIED ROAD WORK DRAWINGS FOR PROPOSED

UPPER FINNEY THIN RE-OFFER

ROAD NO.	MP to MP	MILES
1700	11.42 to 14.00	2.58
1735	0.00 to 2.00	2.00
1740	0.00 to 0.80	0.80
1740111	0.00 to 0.19	0.19
1800	0.00 to 21.1	21.10
	TOTAL	26.67

INDEX TO SHEETS



VICINITY MAP

STATE OF WASHINGTON

PREPARED BY:

HAILU GABRIEL —

NAME DESIGN ENGINEER DATE

REVIEWED BY:

James B. Mitchell 10-29-14

NAME PROJECT TEAM LEADER DATE

REVIEWED BY:

Felix Nitrida 10/30/14

NAME ASSISTANT FOREST ENGINEER DATE

RECOMMENDED BY:

Arthur O. Langley 10-30-14

NAME FOREST ENGINEER DATE

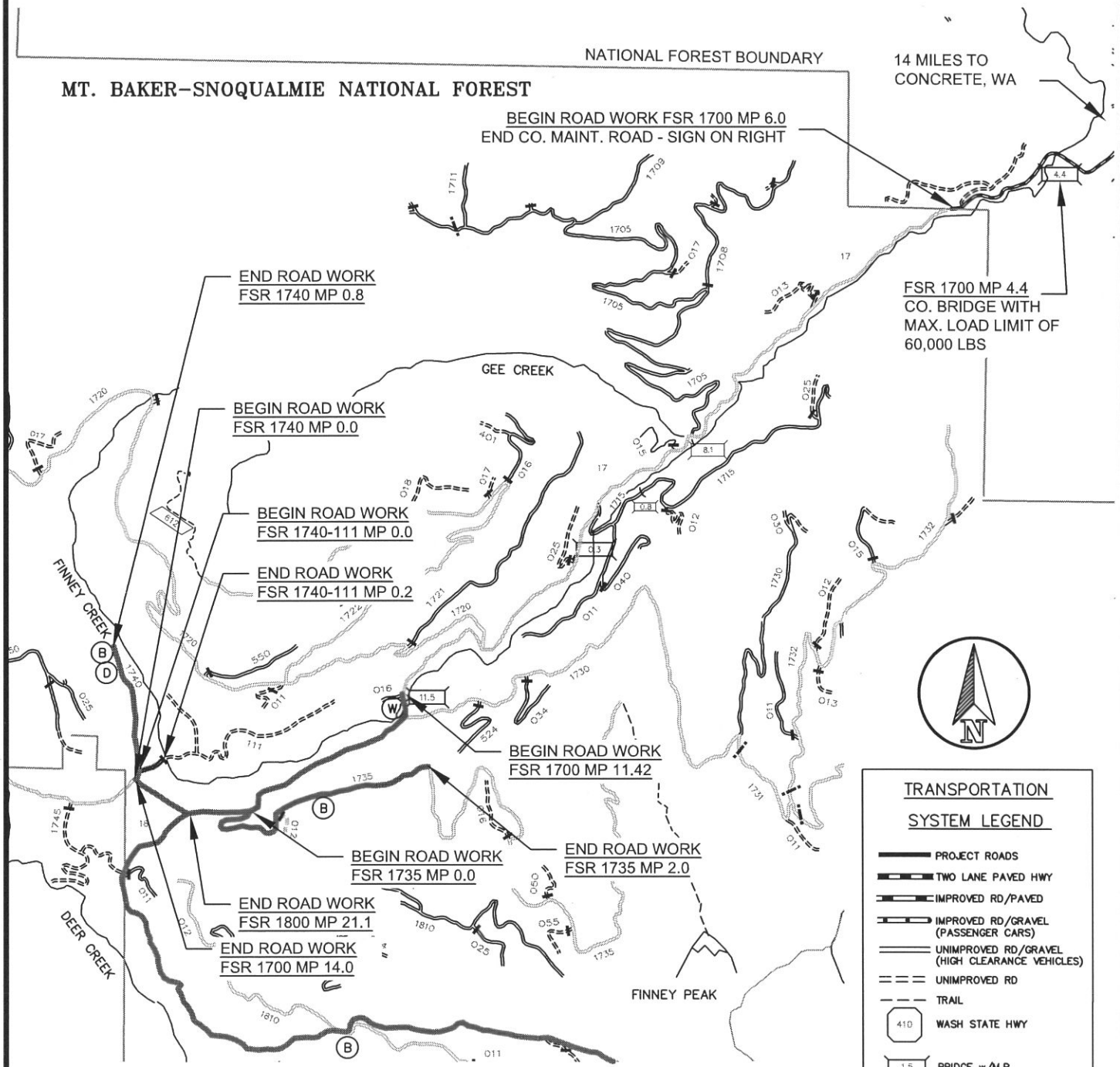
APPROVED BY:

[signature] 10/30/14

NAME DISTRICT RANGER DATE

SHEET	OF
2	35

UPPER FINNEY THIN RE-OFFER
LOCATION MAP
FSR 1700, 1735, 1740, 1740-111



NOTES:

1. FOR ROAD CLOSURES, RESTRICTIONS, SIGNAGE, AND OTHER REQUIREMENTS SEE GENERAL NOTES FOR SPECIFIC ROAD INFORMATION.

2. FOR BORROW, DISPOSAL, AND WATER SOURCE SPECIFIC LOCATIONS SEE GENERAL NOTES AND ROAD WORKLISTS.

SHEET	OF
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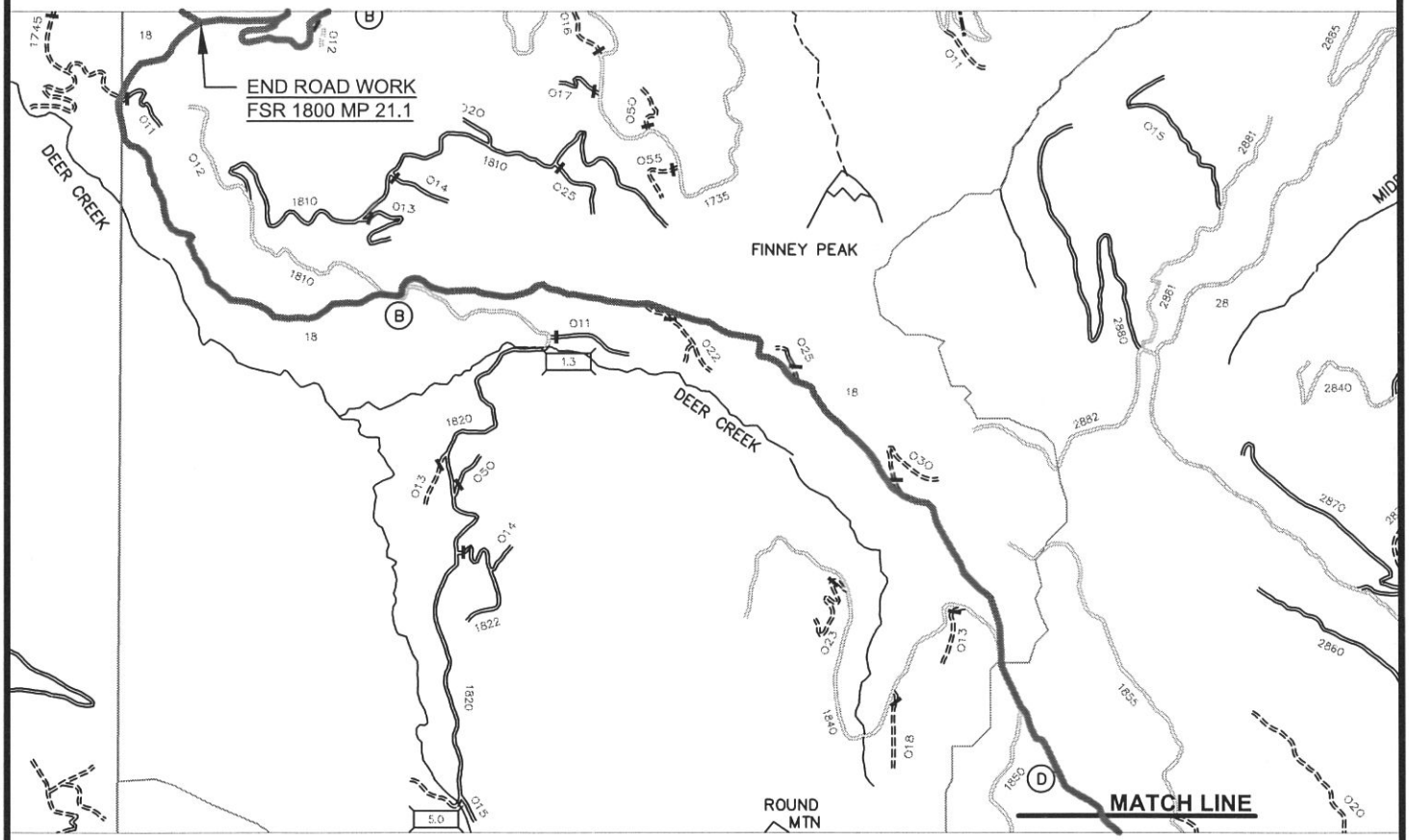
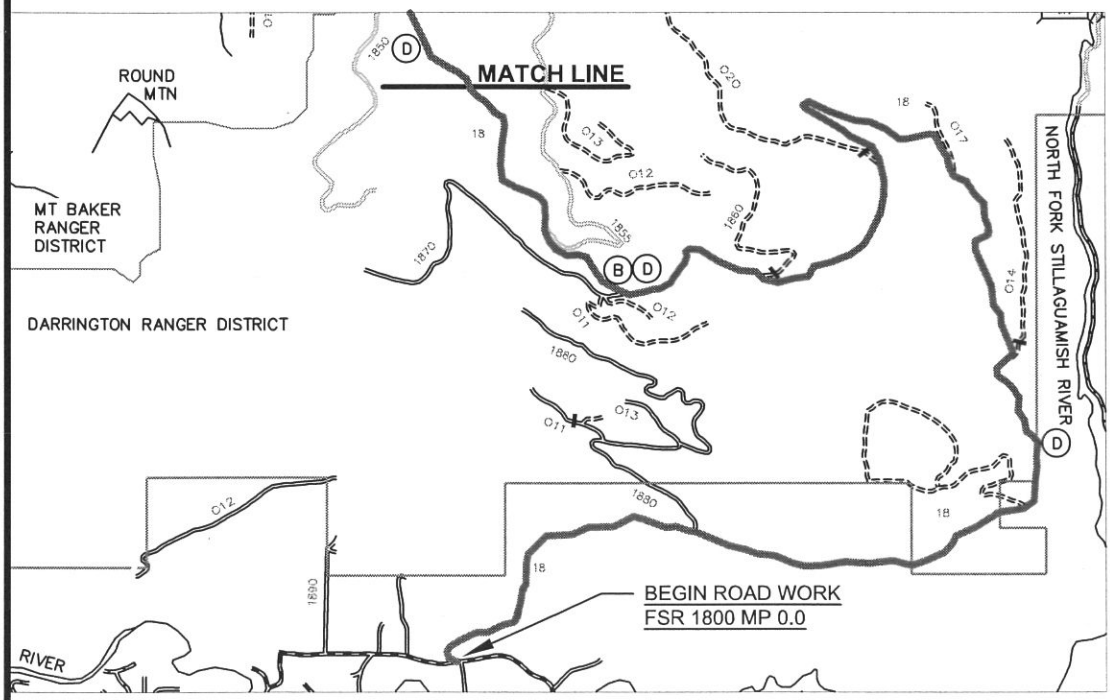
UPPER FINNEY THIN RE-OFFER

LOCATION MAP FOR FSR 1800





TRANSPORTATION SYSTEM LEGEND

- PROJECT ROADS
- TWO LANE PAVED HWY
- IMPROVED RD/PAVED
- IMPROVED RD/GRAVEL (PASSENGER CARS)
- UNIMPROVED RD/GRAVEL (HIGH CLEARANCE VEHICLES)
- UNIMPROVED RD
- TRAIL
- 410 WASH STATE HWY
- 1.5 BRIDGE w/M.P.
- LOCKED GATE
- BLOCKED ROAD
- (D) DESIGNATED DISPOSAL AREAS
- (W) DESIGNATED WATER WITHDRAWAL LOCATIONS
- (B) DESIGNATED BORROW SOURCES

NOTES:

1. FOR ROAD CLOSURES, RESTRICTIONS, SIGNAGE, AND OTHER REQUIREMENTS SEE GENERAL NOTES FOR SPECIFIC ROAD INFORMATION.
2. FOR BORROW, DISPOSAL, AND WATER SOURCE SPECIFIC LOCATIONS SEE GENERAL NOTES AND ROAD WORKLISTS.

0 1/2 1 2
MILES

SHEET	OF
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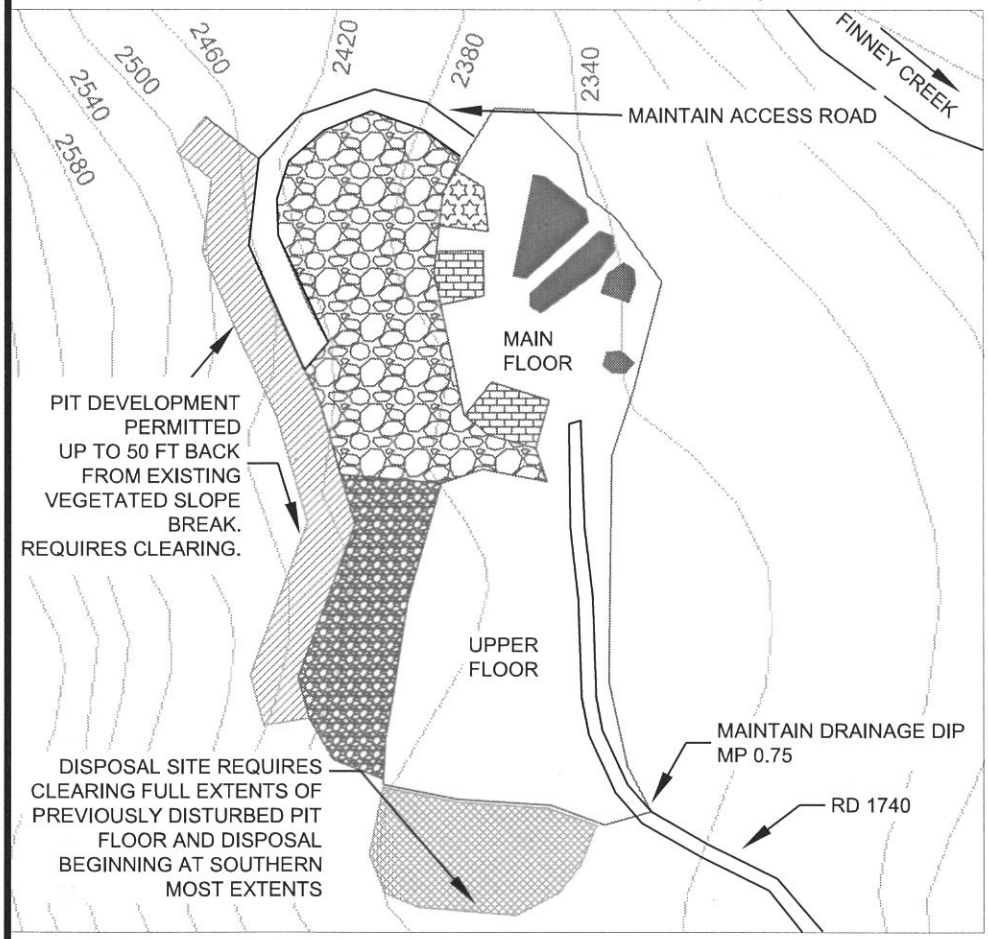
UPPER FINNEY THIN RE-OFFER
RD 1740 FINNEY PIT PLAN
T34N, R7E, Section 25



LEGEND

- ROAD
- CONTOUR LINES
- CLEARING & EXCAVATION
- CLEARING & DISPOSAL
- ROCK BORROW
- SMALL ROCK BORROW
- ROCK STOCKPILES
- OVERSIZE STOCKPILE
- EXISTING STOCKPILE (DO NOT USE)

-80 -40 0 100 200

SCALE 1" = 100'

N

NOTES:

1. AT THE COMPLETION OF OPERATIONS THE QUARRY FLOOR SHALL BE SHAPED TO DRAIN. CLEARING LIMITS SHALL BE 10 FEET BEYOND THE EXCAVATION LIMIT.
2. ROAD 1740 SHALL REMAIN OPEN TO TRAFFIC DURING AND AFTER THE MATERIAL SOURCE OPERATION. CONTRACTOR SHALL MAINTAIN THE ACCESS ROAD AND RESHAPE AT THE CONCLUSION OF OPERATIONS.
3. EXCAVATION SHALL BE CONFINED TO THE AREA SHOWN ON THE DRAWING. DO NOT UNDERCUT UPPER ACCESS ROAD.
4. CUT SLOPE SHALL BE LEFT NO STEEPER THAN ADJACENT EXISTING SLOPES UNALTERED BY TIMBER SALE CONTRACT WORK.
5. EQUIPMENT SHALL BE CLEANED IN ACCORDANCE WITH SECTION 171.03-171.07 OF THE TIMBER SALE CONTRACT.
6. OVERSIZED MATERIAL SHALL BE PLACED IN THE OVERSIZE STOCKPILE AREA SHOWN ON THE DRAWING.
7. CONTRACTOR SHALL NOT USE MATERIAL FROM EXISTING STOCKPILES.

H.GABRIEL 08/08/2014

UPPER FINNEY THIN RE-OFFER **SUMMARY OF QUANTITIES** (FOR EACH SPECIFIED ROAD)										SHEET 5	OF 35
	PAY ITEM	DESCRIPTION OF WORK	UNIT	ROAD NUMBER					TOTAL
				1700	1735	1740	1740111	1800	
* Denotes Contract Quantity									
	15101	MOBILIZATION (INCLUDES CLEANING OF EQUIPMENT, SIGNING, TRAFFIC CONTROL, SANITATION)	LS	COMMON TO ALL ROADS					**1**
	20301	REMOVAL OF EXISTING CULVERT	EACH	0	1	0	0	0	**1**
*	20401A	ROADWAY EXCAVATION, COMPACTION METHOD A	CY	69	742	0	0	75	**886**
	20401B	ROADWAY EXCAVATION, RD 1735 MP0.66 RECONSTRUCT ROAD GRADE AND PROFILE	LS	0	1	0	0	0	**1**
	20401C	ROADWAY EXCAVATION, RD 1735 MP 2.0 CONSTRUCT 40-FT RADIUS TURNAROUND	LS	0	1	0	0	0	**1**
	20401D	ROADWAY EXCAVATION, RD 18 MP 18.55 WIDEN ROAD	LS	0	0	0	0	1	**1**
*	20419	DRAINAGE EXCAVATION, DITCH RECONSTRUCTION	LF	0	50	3960	0	500	**4510**
	20420	DRAINAGE EXCAVATION, DRIVEABLE DIP	EACH	0	0	0	1	0	**1**
*	20950	CULVERT BEDDING MATERIAL (COMMERCIAL SOURCE)	TON	0	22	0	0	0	**22**
	23050	ROADSIDE BRUSHING	MILE	2.58	2.00	0.75	0.19	21.10	**26.62**
*	25101A	PLACED RIPRAP, CLASS 5 (GOVERNMENT SOURCE)	CY	63	369	0	0	0	**432**
*	25101B	PLACED RIPRAP, CLASS 7 (GOVERNMENT SOURCE)	CY	54	0	0	0	100	**154**
*	25302	GABIONS, 9-GAUGE WELDED-WIRE , GALVANIZED (INCLUDES GEOTECH FABRIC TYPE IV NONWOVEN, FILL, AND WASTE DISPOSAL)	CY	20	0	0	0	0	**20**
*	26201A	GEOGRID CATEGORY 1 BIAXIAL	SY	0	370	0	0	260	**630**
*	26201B	GEOGRID CATEGORY 2 BIAXIAL	SY	0	520	0	0	0	**520**
	30322	ROAD RECONDITIONING, COMPACTION METHOD A	MILE	2.58	2.00	0.75	0.19	21.10	**26.62**
*	32201	AGGREGATE BASE, CLASS 1 (<8"), COMPACTION METHOD A (COMMERCIAL SOURCE)	TON	50	366	0	0	25	**441.0**
*	32209A	AGGREGATE SURFACING, GRADING EQUAL TO WSDOT MIX 1-1/4" MINUS, COMPACTION METHOD C (COMMERCIAL SOURCE)	TON	79	311	0	0	115	**505**

UPPER FINNEY THIN RE-OFFER **SUMMARY OF QUANTITIES** (FOR EACH SPECIFIED ROAD)										SHEET 6	OF 35
	PAY ITEM	DESCRIPTION OF WORK	UNIT	ROAD NUMBER							
				1700	1735	1740	1740111	1800	TOTAL		
* Denotes Contract Quantity											
*	32209B	AGGREGATE SURFACING, GRADING EQUAL TO WSDOT MIX 2-1/2" MINUS, COMPACTION METHOD C (COMMERCIAL SOURCE)	TON	0	0	0	30	120	**150**		
*	40401	MINOR HOT MIX ASPHALT CONCRETE	TON	264	0	0	0	0	**264**		
	60273	ANCHOR ASSEMBLIES FOR POLYETHYLENE PIPE	EACH	0	1	0	0	0	**1**		
	60275A	18-INCH HIGH DENSITY POLYETHYLENE PIPE WITH SMOOTH INTERIOR AND ANNULAR EXTERIOR, COMPACTION METHOD A	FT	0	32	0	0	0	**32**		
	60275B	24-INCH HIGH DENSITY POLYETHYLENE PIPE WITH SMOOTH INTERIOR AND ANNULAR EXTERIOR, COMPACTION METHOD A	FT	0	68	0	0	0	**68**		
	60275C	36-INCH HIGH DENSITY POLYETHYLENE PIPE WITH SMOOTH INTERIOR AND ANNULAR EXTERIOR, COMPACTION METHOD A	FT	0	40	0	0	0	**40**		
*	60505	GEOCOMPOSITE SHEET DRAIN SYSTEM	SY	0	0	0	0	150	**150**		
	60790	RECONDITION DRAINAGE STRUCTURE	EACH	0	0	4	1	0	**5**		
	62528	SEEDING, DRY METHOD WITH MULCH (SEED MIX C)	LS	COMMON TO ALL ROADS					**1**		
*	63307	DELINEATORS, PLASTIC POST TYPE 2 RETROREFLECTOR (INCLUDES ANCHOR)	EACH	8	8	0	0	8	**24**		
*	63390	INSTALL "1-LANE BRIDGE" SIGN (INCLUDES POST)	EACH	2	0	0	0	0	**2**		
	63401	PAVEMENT MARKINGS TYPE B WHITE	FT	200	220	0	0	0	**420**		
	65102	PIT AND QUARRY DEVELOPMENT	LS	0	0	1	0	0	**1**		

GENERAL NOTES

1. **Item 15101,** Mobilization – In addition to what is identified in Section 151 of the Specifications, mobilization includes construction signing, traffic control, and cleaning of equipment as indirect costs to this item. Equipment shall be washed (to remove all material that could potentially contain weed seeds) and inspected by the Forest Service Engineering Representative (ER) prior to entering National Forest lands.

2. **Item 20301**, Removal of Culvert – Includes the removal and disposal of all culverts designated in this project for removal. All culverts shall become the property of the Purchaser and be removed off National Forest Lands. Follow all Federal, State, and Local laws for disposal of culverts.

3. **Item 20401A,B,C,D**, Roadway Excavation – Item includes roadway excavation, embankment, compaction, hauling of waste material, and maintaining disposal sites. All excess material shall be hauled to one of the designated disposal areas identified on the Location Map and staked in the field by the ER.

4. **Item 20419**, Drainage Excavation, Type Ditch Reconstruction. See the Work Description List for location and the Ditch Reconstruction Typical for details. All excess material shall be hauled to one of the designated disposal areas identified on the Location Map and staked in the field by the ER.

5. **Item 20420,** Driveable Dip. Construct as shown on typical drawing utilizing material from government source. The objective of this pay item is to provide continuous flow of Rd 1740 ditchwater across Rd 1740-111 during project use .

6. **Item 20950**, Pipe Bedding – Bedding material for culvert installations shall meet the requirements of Item 32201 (Aggregate Base) and shall be obtained from a certified weed free Commercial Source. Submit material certification, test reports, and gradation reports to the ER, prior to purchase, for approval. Load and weight tickets shall be submitted daily to the ER if commercial source. No bedding material shall be placed until the pipe bed has been constructed with positive camber.

7. **Item 23050 A,B,C** Roadside Brushing – This work consists of cutting and disposal of the existing roadway vegetation on all roads. Clearing limits and requirements are shown on the Road Brushing Typical. Loose debris such as logs, rocks and other large debris shall be removed prior to brushing operations incidental to Item 30322 Road Reconditioning.
   Normal roadside brushing – brushing can generally be accomplished with a standard rubber-tired mechanical mowing machine. Most all of the vegetation is less than 3" in diameter. Minor amounts of windfall may be present and require chainsaw and an excavator to remove.

8. **Items 25101 A,B** Placed Riprap, Class 5 and 7 – Riprap shall be obtained from Finney Pit at the end of Road 1740 per Pit Plan Drawing. Riprap stockpile shall be developed under Item 65102.

9. **Items 25302**, Gabions – This work includes but is not limited to excavation and disposal of waste material, gabion purchase and installation, geotechnical fabric, and cell fill including backfilling. Replacing object markers disturbed during construction is incidental. Submittals and materials certifications required.

10. **Items 26201A,B**, Geogrid– This work consists of purchase and placement of geogrid material for slope stabilization. Excavation volume is covered under Item 20401. Submittals and materials certifications required.

11. **Item 30322** Road Reconditioning –This work consists of grading, shaping, and compacting the roadway; grading, cleaning and reshaping all ditches; and cleaning all culvert inlets and outlets. See the Road Reconditioning Typical for details. Compaction with the use of a roller compactor is required. Loose debris such as logs, rocks and other large debris shall be removed from clearing limits.

GENERAL NOTES

12. **Item 32201,32209A,B**, Aggregate Base and Surfacing – aggregate shall be commercial source. Material certification, test reports, and gradation report shall be submitted to the ER for approval prior to delivery to the project. Quantities are measured by the ton. Load and weight tickets shall be submitted daily to the ER for verification of quantities.
    Compaction Method D (AASHTO T 99) requires achieving 95 percent of the maximum density. All work associated with loading, hauling, placing, processing, and compaction are indirect costs.

13. **Item 40401,** Minor Hot Mix Asphalt - This work consists of sawcutting existing asphalt, prepping surface and placing asphalt. Removal and disposal of existing asphalt off National Forest Lands in accordance with all state and local laws is also incidental to this pay item. Submittals and materials certifications required.

14. **Item 60273,** Anchor Assemblies- This work consists of repairing and reattaching to secure downpipes.

15. **Items 60275 A,B,C**, 18", 24", & 36" corrugated polyethylene pipe with Bell and Spigot connections – This work consists of furnishing and installing culverts. See the Drainage Construction Typicals for installation details. Compaction Method B is required as described in Section 209 of the Specifications. All culvert installations at locations with live streams or presence of water shall comply with the MOU with WDFW and be dewatered by pumping, temporary bypass culvert, or ditching. Dewatering is an indirect cost to the culvert installation. Construct culvert bed with positive camber prior to placing bedding material. Bedding Material is a separate pay item 20950. Submittals and materials certifications required.

16. **Item 60505,** Geocomposite Sheet Drain System – Place sheet drain system according to manufactures instruction. Submittals and materials certifications required.

17. **Item 60790,** Recondition drainage structure - This work consists of re-establishing the original culvert and culvert catch basin dimensions and cleaning debris out of the culvert inlets and outlets. See the Drainage Construction Typical for catch basin details.

18. **Item 62528,** Seeding (C-1), dry method (with straw mulch) – This work consists of seeding and mulching all constructed fill slopes, cut slopes, and all disturbed soil areas beyond the traveled way, all disturbed soil areas for culvert installations, and disposal areas. See the Supplemental Project Specifications for seed and mulch (weed free straw) requirements, application, and timing. Submittals and materials certifications required.

19. **Item 63307,** Delineators - This work consists of prepping surface, mounting anchor, and installing delineator. Submittals and materials certifications required.

20. **Item 63390,** Sign Installation - This work consists of installing signs and post. Install wood sign on 12-foot long 4x4 treated timber post with anti-theft bolted fasteners. Submittals and materials certifications required.

21. **Item 63401,** Pavement Markings - This work consists of preparing surface and marking. Submittals and materials certifications required.

22. **Item 65102,** Pit and Quarry Development Including Disposal Area - This work consists of clearing and grubbing, excavation, material sorting, and screening to produce designated material from Finney Pit at MP0.8 of Road 1740. Pit shall be developed by shifting into the hillside up to 50 feet horizontally without undercutting the upper access road. Refer to Pit Plan Drawing. This item also includes shaping pit to safe slopes after material is generated. Cubic Yards to be measured in place at respective designated project site. Material to be stockpiled is per worklist.

GENERAL NOTES

23. **Designated Borrow Source** – Borrow sources shall be used for unclassified borrow as described in the Work List. There are 4 designated borrow sources for this project.
    1. **Road 1740 at MP 0.8 Finney Pit**. Borrow is by widening of the road as shown on Pit Plan Drawing. Utilize this material as designated.
    2. **Road 1735 at MP 1.09** is from existing piles in wide area on right. Utilize this material as road base rock or riprap on Road 1735. Any other excess and suitable material generated as the result of other construction activities may be used for unclassified borrow if approved in advance by the ER.
    3. **Road 1800 at MP 9.65** is an unimproved rock source on right.
    4. **Road 1800 at MP 17.6** is a crushed aggregate pile on left and small riprap on right.

24. **Designated Disposal Areas** – Disposal areas are for slash, debris, soil, and other waste material generated as a result of construction activities that are not designated for other specific locations. Place material within locations and as flagged by the ER. All waste shall be shaped to drain, seeded and mulched, and are indirect costs to those pay items.
    1. **Road 1740 at MP 0.8 Finney Pit**. The waste disposal location is in the south end of the Finney Pit. See Pit Plan Drawing.
    2. **Road 1800 at MP 4.40 Right**
    3. **Road 1800 at MP 9.65 Left**
    4. **Road 1800 at MP 12.2 Left**

25. **Timing of Noise Restrictions - C 6.315** – Restrict heavy equipment and other noise-generating activities above ambient levels **between April 1st** and **September 15th** to between two hours after sunrise to two hours before sunset.

26. **Timing of Drainage Work in live streams - C 6.315** – All work in live streams shall be done under the provisions of the **2012 WDFW-USFS MOU** (Washington State Department of Fish & Wildlife – US Forest Service Memorandum of Understanding). The in-water work window is **July 16th** to **Feb 28th** for any project-related work above Big Fir Creek (Road 1700 MP 6.5).

27. **Dewatering** – The following requirements apply where worksite isolation from flowing waters and/or dewatering occur.
    a. A written dewatering plan shall be prepared prior to the start of the instream work that describes the method of bypass, location and construction of any coffer dams or diversion dams, the number and size of pumps to be used, and backup plans in place in case of mechanical failure or unanticipated storm events.
    b. The dewatering system will be designed and installed to minimize erosion and sediment delivery to watercourses and to withstand all streamflows anticipated during the construction period. Water shall be reintroduced back into the channel in a manner that minimizes the mobilization of fines and sediment into downstream waters.
    c. Water bypassed around the site will be returned to the stream channel downstream of the work site. The bypass discharge point shall be designed to minimize erosion and scour of the stream channel, banks, and vegetation.
    d. Wastewater from project activities within the dewatered area shall be routed to an area outside the bankfull channel to allow removal of fine sediment and other contaminants prior to infiltrating back into waterbodies.
    e. Any materials used to construct the dewatering system will be removed prior to the completion of the project

28. **Water Withdrawal Sources** –Water Withdrawal shall only occur at the following locations and in compliance with all special criteria below. Submit a water withdrawal plan to the Contracting Officer for review and approval 7 days prior to starting work.
    - Road 1700 MP 11.50 from mainstem Finney Creek (T34N, R8E, S29) – Water drafting and tank storage shall be located within the dispersed camping area on the left bank/downstream side of the bridge (North of the bridge).

GENERAL NOTES

- Resident Fish/ Non fish-bearing Stream (all streams assumed to be fish-bearing unless written documentation from FS fish biologist documenting otherwise) -The withdrawal hose or pipe must be fitted with a screen with a minimum effective surface area of at least one square inch of functional screen area for every gallon per minute (gpm) of water drawn through it, a round or square screen mesh that is no larger than 2.38 mm (3/32 or 0.094 inches) in the narrow dimension, or any other shape that is no larger than 1.75 mm (1/16 or 0.069 inches) in the narrow dimension.

- No more that 10% of the instantaneous stream flow may be removed. Streams may be sandbagged or have a weir placed across the stream to pond water. No soil shall be used to seal the water retention area and no logs or woody material from within the bankfull channel may be used. All sandbags or weirs shall be completely removed at the end of work season and prior to onset of rainy season.

29. Road Closures and Notification Requirements – All work costs as shown below are incidental to 15101 Mobilization.

1. Notify the Contracting Officer 7 Calendar days prior to construction and harvest activities regarding this project.

2. Install 3 Road Information Signs on FSR 1700 at MP 0.0 and at Junction with FSR 1740 (MP14.0) and on FSR 1800 MP0.0 meeting all the requirements of the MUTCD 2012 with the following information. Coordinate with Skagit County regarding placement of information sign on FSR 1700 at MP 0.0. Signs shall be present and maintained during all ongoing project road work.

ROAD CONSTRUCTION	
DELAYS	**Sign shall be 60"x60", reflective, white with black letters**
DATE X TO X	**Installation on (2) 4"x4"x12' pressure treated posts with vandal proof nuts**
TIME X TO X	**and bolts**
ROAD # 1X X X X X X	

3. For construction activity work where the road will be CLOSED, install at the beginning and end of each project road, a closure sign meeting all the requirements of the MUTCD 2012 with the following information. Sign shall be present and maintained during all project construction work. See Traffic Control Drawing.

ROAD CLOSED	
FOR CONSTRUCTION	**Sign shall be 48" x 48", reflective, white with black letters**
DATE X TO X	**Sign may be installed on 4"x4"x12' post or placed on a mobile stand**

4. Road Work Ahead signs, At a minimum, (2) 36"x36" signs, Orange with Black Letters, shall be installed on each side of each work activity while work is ongoing. Placement of signs shall be located near the project work sites. See Traffic Control Drawing.

5. Road Closures – C6.315

Notify the Forest Service 14 days prior to any temporary road closures so that land owners and existing mining claimants may be notified, and allow either alternate access, or permitted access through any temporary closure.

6. Specific Road Requirements – FSR 1700, 1735, and 1800 – C5.12

These roads are groomed and maintained for Washington State Finney Sno-Park use during the winter snow season which is typically November 30 to May 1. Haul and road reconstruction activities shall not inhibit Sno-Park use.

UPPER FINNEY THIN RE-OFFER WORK DESCRIPTION LIST Rd. #1700 (Finney-Cumberland) - MP11.42 to 14.00			SHEET 11	OF 35
Mile Post	*Item*	*Description*	*Units*	*Estimated Quantity*
0.00		**Junction with Concrete - Sauk Valley County Rd**		
		County Maintained Road MP 0.00 to 6.00 - No work required		
4.43		**County Bridge - Finney Creek - Overload Permits Required with County**		
6.00		**"End of County Road" Sign - End County Maintained Road**		
8.04		**Road 1705 Right**		
8.15 to 8.17		**Gee Creek Bridge**		
8.97		**Road 1715 Left**		
10.57		**Road 1720 Right**		
11.36		**Road 1700016 Right**		
11.42		**Begin Specified Road Work for Road 1700**		
	63390	Install "One Lane Bridge" W5-3 Sign and Post, Right	EA	1
	23050	Begin Roadside Brushing	MILE	2.58
	30322	Begin Road Reconditioning	MILE	2.58
	32209A	Place Crushed Aggregate Surface Course - 1-1/4" minus Commercial Source Locations to be determined in field at various sites between MP 11.42 to MP 14.0 at existing aggregate locations.	TON	14
	40401	Asphalt Placement - Place HMA - 1/2" Agg - AR4000 Oil Mix - Locations to be determined in field at various sites between MP 11.42 to MP 14.0 at existing asphalt locations.	TON	7
11.50		**Finney Creek Bridge - Overload Permits Required with Forest Service**		
		Water Source Location		
	25101B	Place Class 7 Riprap - 2 Abutments	CY	30
	25302	Install 2 Gabion Structures - See Typical	CY	20
	40401	Asphalt Placement - - HMA - 1/2" Agg - AR4000 Oil Mix - 2 Bridge Approaches - Each, 15'W x 30'L x 6" D	TON	36
	32209A	Place Crushed Aggregate Surface Course - 1-1/4" minus Commercial Source	TON	30
11.50-11.60	40401	Asphalt Placement - - HMA - 1/2" Agg - AR4000 Oil Mix - From Bridge to Junction 1730, 15'W x 530'L x 3" D	TON	158
11.53	63390	Install "One Lane Bridge" W5-3 Sign and Post, Left	EA	1
11.99		**Existing 36" Culvert**		
	20401A	Excavate 3'Deep, Place Base Subgrade Material, Then Recompact	CY	69
		Haul excess excavation material to Road 1740 Pit		
	32201	Place Class 1 Aggregate Base 8" Depth - Commercial Source	TON	30
	32209A	Place Crushed Aggregate Surface Course - 1-1/4" minus Commercial Source	TON	15
	40401	Asphalt Placement - HMA - 1/2" Agg - AR4000 Oil Mix - 14'W x 50'L x 3" D	TON	15

UPPER FINNEY THIN RE-OFFER WORK DESCRIPTION LIST			SHEET 12	OF 35
Rd. #1700 - MP 11.42 to 14.00 - Continued				
Mile Post	***Item***	***Description***	***Units***	***Estimated Quantity***
12.00		**Mile Marker 12**		
12.06		Existing 24" Culvert		
	25101B	Place Class 7 Riprap at Outlet - Government Source	CY	24
	32201	Place Class 1 Subgrade Base 6" Depth - Commercial Source	TON	20
	32209A	Place Crushed Aggregate Surface Course - 1-1/4" minus Commercial Source	TON	10
12.85	40401	Asphalt Placement - HMA - 1/2" Agg - AR4000 Oil Mix - 14'W x 120'L x 3" D - Leveling Course	TON	35
13.00		**Mile Marker 13**		
13.01		Existing Concrete Vented Ford over Open Box Culvert		
	63307	Install Delineators w/ Ducks to Concrete - 4 Left - 4 Right	EA	8
	63401	Install Fog Lines - Left and Right	LF	200
13.03	40401	Asphalt Placement - HMA - 1/2" Agg - AR4000 Oil Mix - 16'W x 20'L x 3" D	TON	7
	32209A	Place Crushed Aggregate Surface Course - 1-1/4" minus Commercial Source	TON	10
13.10		**Road 1735 Left**		
13.20	40401	Asphalt Placement - HMA - 1/2" Agg - AR4000 Oil Mix - 6'W x 10'L x 3" D	TON	2
13.28 - 13.30	25101A	Place Class 5 Riprap at 5 designated locations in Ditchline Left	CY	43
		Location Amounts are (#1 - 5 CY) - (#2 - 5 CY) - (#3 - 8 CY) - (#4 - 10 CY)		
		(# 5 - 15 CY) - Government Source		
13.21	40401	Asphalt Placement - HMA - 1/2" Agg - AR4000 Oil Mix - 5'W x 5'L x 3" D	TON	1
13.30		Existing 72" Culvert		
	25101A	Place Class 5 Riprap in Ditch Bottom - See Typical Details	CY	20
13.32	40401	Asphalt Placement - HMA - 1/2" Agg - AR4000 Oil Mix - 5'W x 5'L x 3" D	TON	1
13.36	40401	Asphalt Placement - HMA - 1/2" Agg - AR4000 Oil Mix - 5'W x 5'L x 3" D	TON	1
13.42	40401	Asphalt Placement - HMA - 1/2" Agg - AR4000 Oil Mix - 5'W x 5'L x 3" D	TON	1
13.55		**Road 18 Left**		
13.99		**Road 1740 Right**		
		End Specified Road Work for Road 1700		
	30322	End Road Reconditioning		
	23050	End Roadside Brushing		
	32209A	End Place Crushed Aggregate Surface Course		
	40401	End Asphalt Placement		
14.00		**Mile Marker 14**		

UPPER FINNEY THIN RE-OFFER WORK DESCRIPTION LIST			SHEET 13	OF 35
Rd. #1735 (Finney Peak) - MP 0.00 to 2.00				
Mile Post	***Item***	***Description***	***Units***	***Estimated Quantity***
0.00		**Begin Specified Road Work for Road 1735**		
	23050	Begin Roadside Brushing	MILE	2.00
	30322	Begin Road Reconditioning	MILE	2.00
0.27		**Switchback Left**		
0.35		New Stream Channel		
	60275B	Install new 24" HDPE Culvert (90deg skew, 19% gradient)	LF	30
	20950	Place Culvert bedding material - 1-1/4" minus - Commercial Source	TON	5
	25101A	Place Class 5 Riprap for inlet headwall and outlet apron - Government Source	CY	5
	25101A	Construct Class 5 Riprap Wall 20'W x 11'V x 3' D on Fillslope - See Detail	CY	25
	32209A	Place Crushed Aggregate Surface Course - 1-1/4" minus Commercial Source	TON	3
0.35-0.48		Existing Shoulder Cracking		
	32201	Place Class 1 Aggregate Base 6" Depth - Commercial Source	TON	366
	32209A	Place Crushed Aggregate Surface Course - 1-1/4" minus Commercial Source	TON	100
0.66		Existing 48" HDPE Culvert		
	20401B	Reconstruct and lower Roadway Grade by Excavating - Haul excess excavation material to FSR 1740 Pit - See Typical	LS	1
	32209A	Place Crushed Aggregate Surface Course - 1-1/4" minus Commercial Source	TON	35
0.69		Existing Concrete Vented Ford		
	63307	Install Delineators w/ Ducks to Concrete	EA	8
	63401	Stripe Fog Lines	LF	220
1.00 to 1.02		Existing Shoulder Cracking		
	20401A	Reconstruct Roadway 9' in from Outside Edge 3' Depth	CY	35
	25101A	Place Class 5 Riprap for Geogrid Facing - Government Source	CY	15
	26201A	Install GeoGrid Category 1 - 1 Layer	SY	50
	32209A	Place Crushed Aggregate Surface Course - 1-1/4" minus Commercial Source	TON	10
1.09		Borrow Source - Right		
1.10-1.16		Existing Shoulder Cracking		
	20401A	Reconstruct Roadway 9' in from Outside Edge 3' Deep	CY	224
	25101A	Place Class 5 Riprap for Geogrid Facing - Government Source	CY	96
	26201A	Install GeoGrid Category 1 - 1 Layer	SY	320
	32209A	Place Crushed Aggregate Surface Course - 1-1/4" minus Commercial Source	TON	48
1.16		Existing Damaged 18" Aluminum Culvert with Flume		
	20301	Remove existing CMP and Flume	EA	1
	60275A	Install new 18" HDPE Culvert (match existing alignment and grade)	LF	32
	20950	Place Culvert bedding material - 1-1/4" minus - Commercial Source	TON	5
	25101A	Place Class 5 Riprap for inlet headwall and outlet apron - Government Source	CY	5
	32209A	Place Crushed Aggregate Surface Course - 1-1/4" minus Commercial Source	TON	10
1.63		Existing 2 Streams		
1.64	60275B	Install new 24" HDPE Culvert (70deg skew, 17% gradient)	LF	38
	20950	Place Culvert bedding material - 1-1/4" minus - Commercial Source	TON	5
	25101A	Place Class 5 Riprap for inlet headwall and outlet apron - Government Source	CY	5
	32209A	Place Crushed Aggregate Surface Course - 1-1/4" minus Commercial Source	TON	10

UPPER FINNEY THIN RE-OFFER

WORK DESCRIPTION LIST

Rd. #1735 (Finney Peak) - MP 0.00 to 2.00

Mile Post	*Item*	*Description*	*Units*	*Estimated Quantity*
1.70		Existing 48" HDPE Culvert with Detached Flume		
	60273	Reattach Flume	EA	1
1.71		Existing Live Stream At Alluvial Fan Runs in Ditch 40' to Existing Culvert		
	60275C	Install new **36**" HDPE Culvert (90deg skew, 23% gradient)	LF	40
	20950	Place Culvert bedding material - 1-1/4" minus - Commercial Source	TON	7
	25101A	Place Class 5 Riprap for inlet headwall and outlet apron - Government Source	CY	10
	32209A	Place Crushed Aggregate Surface Course - 1-1/4" minus Commercial Source	TON	10
1.78-1.88		Existing Shoulder Cracking		
	20401A	Reconstruct Roadway 9' in from Outside Edge 4' Deep	CY	483
	25101A	Place Class 5 Riprap for Geogrid Facing - Government Source	CY	208
	26201B	Install GeoGrid Category 2 - 1 layer	SY	520
	32209A	Place Crushed Aggregate Surface Course - 1-1/4" minus Commercial Source	TON	70
1.88		Existing Ditch Obstructed		
	20419	Ditch Reconstruction 10CY, Haul excavated material to FSR 1740 Pit	LF	50
2.00		**Existing Landing, Road Continues after Sharp Turn to Right**		
		End Specified Road Work for Road 1735		
	20401C	Construct 40' radius turnaround	LS	1
	32209A	Place Crushed Aggregate Surface Course - 1-1/4" minus Commercial Source	TON	15
	23050	End Roadside Brushing		
	30322	End Road Reconditioning		

UPPER FINNEY THIN RE-OFFER WORK DESCRIPTION LIST			SHEET 15	OF 35
Rd. #1740 (Finney Pit) - MP 0.00 to 0.80				
Mile Post	***Item***	***Description***	***Units***	***Estimated Quantity***
0.00		**Begin Specified Road Work for Road 1740**		
	23050	Begin Roadside Brushing	Mile	0.75
	20419	Begin Ditch Reconstruction - Left -	LF	3960
	30322	Begin Road Reconditioning	Mile	0.75
0.45		Existing 18" Culvert		
	60790	Recondition Culvert Cleaning Inlet - Inside - Outlet	EA	1
0.49		Existing 18" Culvert		
	60790	Recondition Culvert Cleaning Inlet - Inside - Outlet	EA	1
0.52		Existing 18" Culvert		
	60790	Recondition Culvert Cleaning Inlet - Inside - Outlet	EA	1
0.57		Existing 18" Culvert		
	60790	Recondition Culvert Cleaning Inlet - Inside - Outlet	EA	1
0.75		**End Specified Road Work at Entrance to Existing Finney Rock Pit**		
		End Specified Road Work for Road 1740		
		End of Landing		
	23050	End Roadside Brushing		
	30322	End Road Reconditioning - Maintain Existing Dip		
	20419	End Ditch Reconstruction - Left		
0.80		Finney Rock Pit		
	65102	Pit Development per Pit Plan - See Typical	LS	1

UPPER FINNEY THIN RE-OFFER **WORK DESCRIPTION LIST**			SHEET 16	OF 35
Rd. #1740111 (Finney GS) - MP 0.00 to 0.19				
Mile Post	***Item***	***Description***	***Units***	***Estimated Quantity***
0.00		**Begin Specified Road Work for Road 1740-111**		
	23050	Begin Roadside Brushing	Mile	0.19
	30322	Begin Road Reconditioning	Mile	0.19
0.01	20420	Install low water crossing at entrance - Class 2 - Government Furnished	EA	1
0.12		Existing 18" Culvert in Dry Swale		
	60790	Recondition Culvert Cleaning Inlet and Outlet	EA	1
0.17 to 0.19	32209B	Place Crushed Aggregate Surface Course - 2-1/2" minus Commercial Source	CY	30
0.19		**End Specified Road Work for Road 1740-111**		
		End of Landing		
	23050	End Roadside Brushing		
	30322	End Road Reconditioning		

UPPER FINNEY THIN RE-OFFER **WORK DESCRIPTION LIST**			SHEET 17	OF 35
Rd. #1800 (Segelsen) - MP 0.00 to 21.10				
Mile Post	***Item***	***Description***	***Units***	***Estimated Quantity***
0.00		**Junction with County Rd**		
	23050	Begin Roadside Brushing	Mile	21.10
	30322	Begin Road Reconditioning	Mile	21.10
2.05		Intersection with FSR 1880 - Left		
2.25		DNR Spur Rd Right		
3.00		Mile Marker 3 - Left		
3.1 - 3.3		Begin Rough Road Segment		
	20419	Ditch Reconstruction - Haul excavated material to MP 4.4 Disposal Site	LF	500
	32209A	Place Crushed Aggregate Surface Course - 1-1/4" minus Commercial Source	TON	40
3.90		DNR Spur Rd - Right		
4.00		DNR Spur Rd - Left		
4.40		FS Sno Park - Right - Waste Disposal Site at Designated locations		
5.95		Mile Marker 6 - Left		
7.30		Switchback Left		
9.30		Existing 36" HDPE Culvert		
	32209A	Place Crushed Aggregate Surface Course - 1-1/4" minus Commercial Source	TON	20
9.65		Existing Borrow Site - Right - Waste Area Left		
10.00		Mile Marker 10 - Right		
10.48	32209A	Place Crushed Aggregate Surface Course - 1-1/4" minus Commercial Source	TON	20
10.70		Intersection with FSR 1855 - Right		
12.25		Waste Area - Left		
12.52		Intersection with FSR 1850 - Left		
12.97		Intersection with FSR 1840 - Left		
13.85		Repair Scour at 36' HDPE Culvert - Left		
	25101B	Place Class 7 Riprap at Outlet - See Typical	CY	100
	32209A	Place Crushed Aggregate Surface Course - 1-1/4" minus Commercial Source	TON	10
15.15		Intersection with FS Spur Road - Right		
15.2 - 15.3		Widen Road Right by 2 feet		
	20401A	Widen Roadway 2' on Right - Haul excess waste to Disposal Site	CY	75

UPPER FINNEY THIN RE-OFFER WORK DESCRIPTION LIST			SHEET 18	OF 35
Rd. #1800 (Segelsen)- MP 0.00 to 21.10				
Mile Post	*Item*	*Description*	*Units*	*Estimated Quantity*
16.21		Reconstruct Roadway by Raising Grade through Dip		
	32209B	Place Crushed Aggregate Surface Course - 2-1/2" minus Commercial Source	TON	20
16.25		Existing Concrete Ford		
	63307	Install Delineators w/ Ducks to Concrete - 4 Left - 4 Right	EA	8
16.40		AC Dip		
16.45		Raise Grade at Dip for uniform grade		
	32209B	Place Crushed Aggregate Surface Course - 2-1/2" minus Commercial Source	TON	25
16.50		Raise Grade at Dip for uniform grade		
	32209B	Place Crushed Aggregate Surface Course - 2-1/2" minus Commercial Source	TON	25
16.66		AC Dip		
17.20		Raise Grade at Dip for uniform grade		
	32209B	Place Crushed Aggregate Surface Course - 2-1/2" minus Commercial Source	TON	25
17.48		AC Dip		
17.52		AC Dip		
17.60		Borrow Site - Crushed Aggregate Left - Riprap on Bank Right		
17.63		Intersection with FSR 1820 - Left		
17.72		Intersection with 1810 - Right		
17.93		Raise Grade at Dip for uniform grade		
	32209B	Place Crushed Aggregate Surface Course - 2-1/2" minus Commercial Source	TON	25
18.55		Repair Left Side Shoulder Failure		
	20401D	Reconstruct Roadway Embankment - See Typical	LS	1
	60505	Geocomposite Type 1 Sheet Drain System	SY	150
	26201A	Install GeoGrid Category 1 - 3 layers	SY	260
	32201	Place Class 1 Aggregate Base 6" Depth - Commercial Source	TON	25
	32209A	Place Crushed Aggregate Surface Course - 1-1/4" minus Commercial Source	TON	25
20.00		Mile Marker 20 - Right		
20.30		Intersection with Spur Road - Right - Enter Timber Sale Unit Boundary # 4		
21.10		Intersection with FSR 17 -		
	23050	End Roadside Brushing		
	30322	End Road Reconditioning		

UPPER FINNEY THIN RE-OFFER

DRAINAGE LISTING

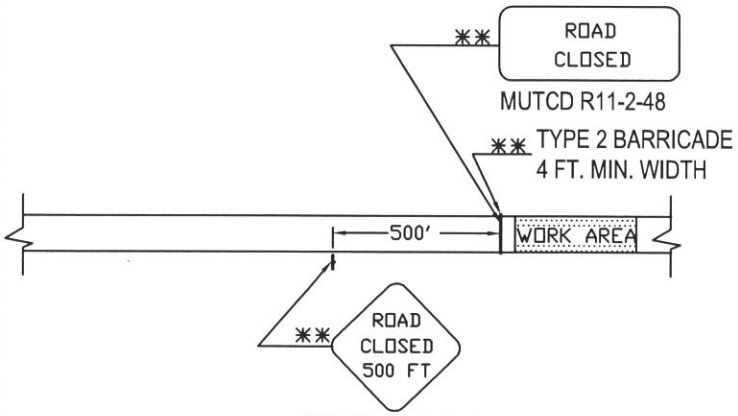
SHEET	OF
19	35

(See the work summary sheets for work description at each location.)

Design		As Built		Allowable Alternatives		Installation Details								Remarks
				All Pipes Shall Be Plastic Unless Otherwise Specified										
Mile Post	L.F.	Mile Post	L.F.	Dia. in Inches	Corrugations if Metal Pipe is Specified	Type	Grade %	Skew Deg.	Headwall Ditchdam (CY)	Outlet Apron (CY)	Bedding (TON)	Elbow	Anchor Sets	*Place Class 7 Riprap **Place Class 8 Riprap All Others Class 5 Riprap
ROAD 1700 DRAINAGE LISTING														
11.40		Existing Bridge over Finney Creek												
12.06		Existing 24" HDPE Culvert with large scour hole								20				Reconstruct outlet apron - Class 7
13.00		Existing concrete ford												
13.28		Existing Scoured Ditch LT							43					Construct grade control weirs
13.30		Existing 72" CMP												
ROAD 1735 DRAINAGE LISTING														
0.35	30			24		3	19	90	1	4	3			New Culvert at Stream
0.69		Existing Concrete Vented Ford												
1.16	32			18		Match Existing			1	2	2			Remove/Replace Existing 18"x32' CMP
1.63		Existing Culvert												
1.64	38			24		3	17	70	1	3	3			New Culvert at Stream
1.70		Existing 48" HDPE Culvert												
1.71	40			36		3	23	90	3	6	4			New Culvert at Stream
ROAD 1800 DRAINAGE LISTING														
13.85		Existing 36" HDPE Culvert with large scour hole								100				Place Riprap at Outlet Scour Hole

TRAFFIC CONTROL PLAN

TRAFFIC CONTROL PLAN FOR ROAD CLOSURE



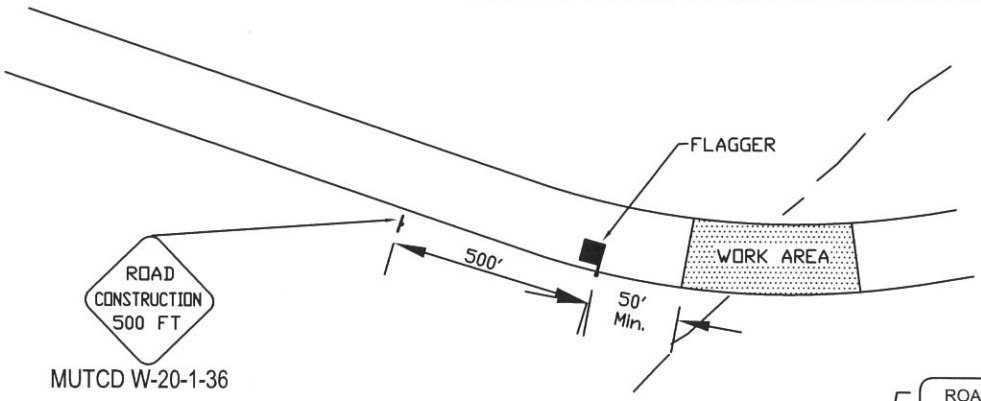
1.) ROAD USE AUTHORIZATION PER C 5.12, "USE OF ROADS BY PURCHASER" IN CONTRACT.

2.) TOTAL ROAD CLOSURE PER SUPPLEMENTAL SPECIFICATIONS SECTION 156 PUBLIC TRAFFIC IN THE CONTRACT. OPERATIONS AT ALL OTHER TIMES WILL ACCOMODATE TRAFFIC.

3.) TRAFFIC CONTROL DEVICES SHALL BE MAINTAINED FOR DURATION OF CLOSURE.

4.) ALL SIGNS SHALL CONFORM WITH MUTCD SECTIONS 2A-11, THROUGH 2A-16, 6B-1 AND 6B-2 OF THE 2012 EDTION.

5.) ** SIGNS ARE SHOWN FOR ONE DIRECTION OF TRAVEL ONLY. THE SAME NUMBER AND TYPES OF SIGNS SHALL BE PROVIDED FOR THE OPPOSITE DIRECTION OF TRAVEL.



TRAFFIC CONTROL PLAN FOR TRAFFIC ALLOWED THROUGH WORK AREA

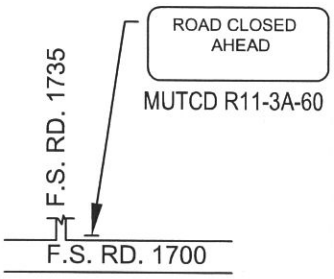
1.) WORK AREA SHALL BE IN A CONDITION SUCH THAT IT MAY BE SAFELY TRAVERSED AT NIGHT, INCLUDING CHANNELIZING DEVICES IF NEEDED.

2.) WARNING LIGHTS SHALL BE USED TO MARK CHANNELIZING DEVICES AT NIGHT AS NEEDED.

3.) TRAFFIC CONTROL DEVICES SHALL BE MAINTAINED FOR DURATION OF WORK IN BOTH DIRECTIONS OPEN TO TRAFFIC.

4.) SIGNS ARE SHOWN FOR ONE DIRECTION OF TRAVEL ONLY. THE SAME NUMBER AND TYPES OF SIGNS SHALL BE PROVIDED FOR THE OPPOSITE DIRECTION OF TRAVEL.

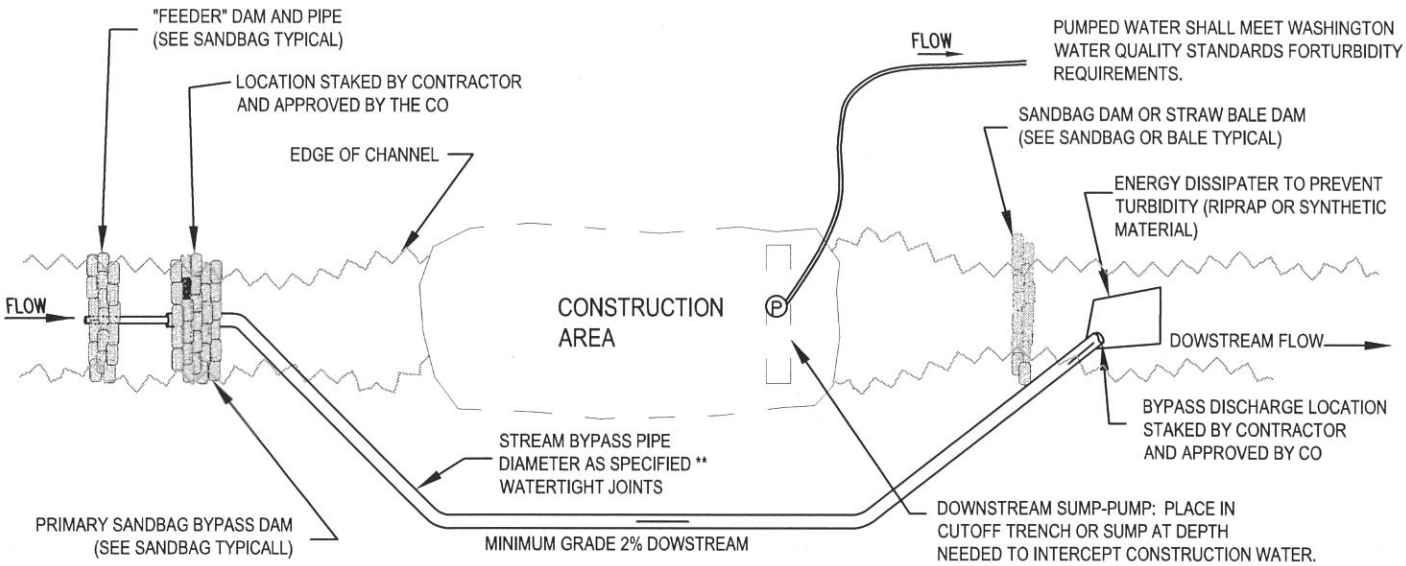
5.) ALL SIGNS SHALL CONFORM WITH MUTCD SECTIONS 2A-11, THROUGH 2A-16, 6B-1 AND 6B-2 OF THE 2012 EDITION.



SAMPLE ONLY
ACTUAL ROAD NUMBER MAY NOT MATCH DETAIL TYPICAL.

U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE PACIFIC NORTHWEST REGION–6		DATE: AUGUST 8, 2014
		SHEET: 20 OF: 35
APPROVED:	DWG NO: 15101–1	DRAWN BY: U. S. FOREST SERVICE
Title: UPPER FINNEY THIN RE–OFFER		FILE NAME: TRAFFIC CONTROL

TEMPORARY EROSION CONTROL PLAN

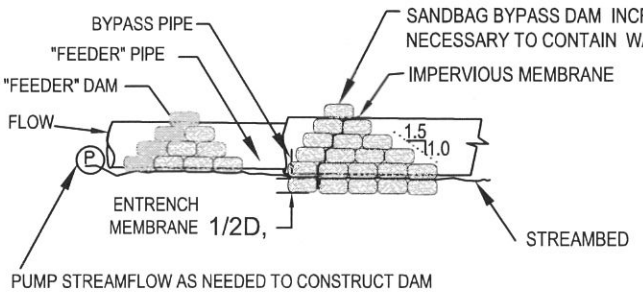


PLAN VIEW
TYPICAL DEWATERING & SEDIMENT CONTROL PLAN
NOT TO SCALE

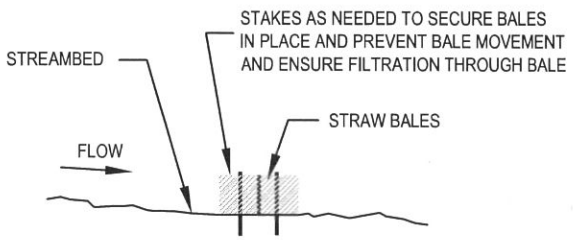
NOTE:

1. WORK SHALL BE DONE UNDER DRY CONDITIONS. A CONTINGENCY PLAN WILL BE SUBMITTED PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES, ALONG WITH AN EROSION CONTROL PLAN.
2. CONTRACTOR SHALL PROTECT EXISTING VEGETATION AND WILL CONFINE EXCAVATION TO WITHIN THE CLEARING LIMITS.
3. WHEN IN FISH BEARING STREAM, PUMPS SHALL BE EQUIPPED WITH A FISH GUARD THAT HAS A 3/32-INCH OR SMALLER MESH TO PREVENT PASSAGE OF FISH INTO PUMP.
4. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE M.O.U./H.P.A. A COPY OF THE M.O.U./H.P.A. WILL BE ON SITE DURING ALL CONSTRUCTION ACTIVITIES.

**THE VOLUME OF WATER EXPECTED AT THE DAM IS UNKNOWN. SIZE PIPE OR USE A COMBINATION OF SIPHONING AND PUMPING TO DIVERT WATER AROUND EXCAVATION TO A SUITABLE TREATMENT AREA OR DIRECTLY BACK INTO STREAM IF APPROVED BY THE COR.

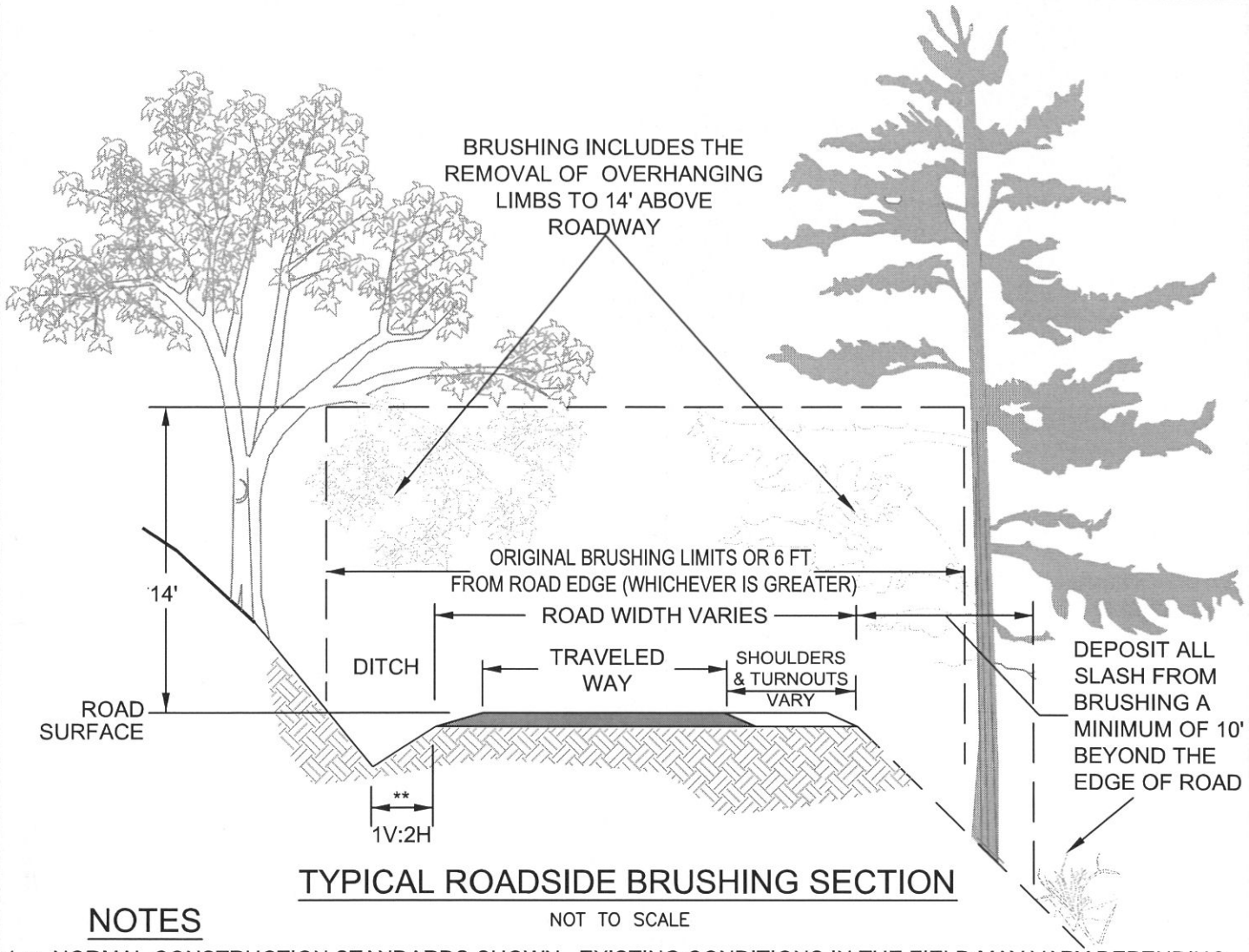


SECTION VIEW AT STREAMBED INVERT
SANDBAG BYPASS DAM TYPICAL
NOT TO SCALE



SECTION VIEW
STRAW BALE DAM TYPICAL
NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE PACIFIC NORTHWEST REGION–6		DATE: July 21, 2014
		SHEET: 21 OF: 35
APPROVED:	DWG NO: 15101–2	DRAWN BY: U. S. FOREST SERVICE
Title: UPPER FINNEY THIN RE–OFFER		FILE NAME: EROSION CONTROL



TYPICAL ROADSIDE BRUSHING SECTION

NOT TO SCALE

NOTES

1. ** NORMAL CONSTRUCTION STANDARDS SHOWN. EXISTING CONDITIONS IN THE FIELD MAY VARY DEPENDING ON THE ACTUAL SHOULDER AND DITCH CONSTRUCTED AND MAINTAINED.

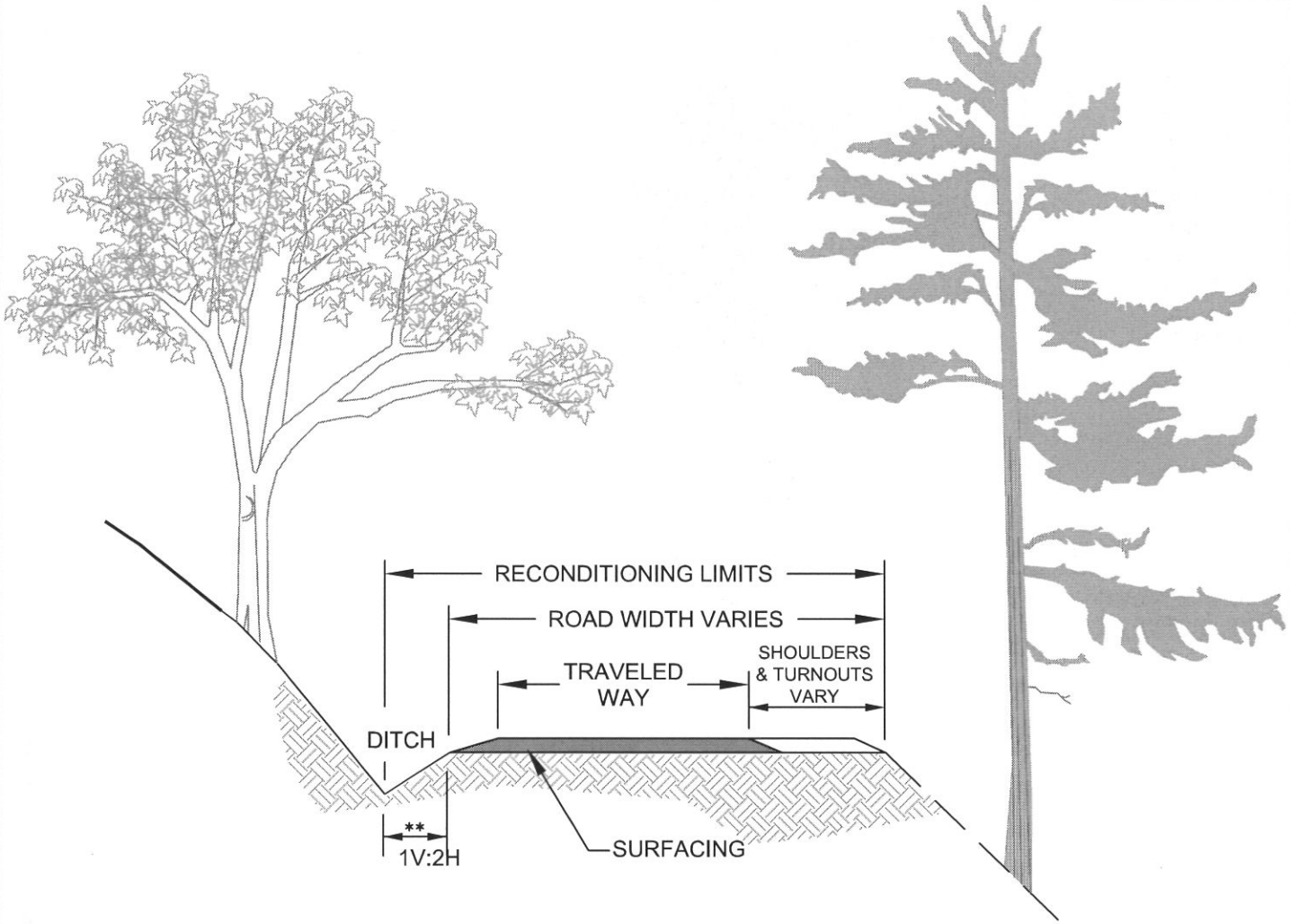
2. SCATTER MATERIAL A MINIMUM OF 10 FEET BEYOND THE EDGE OF ROAD ALONG THE FILL SLOPE AND A MINIMUM OF5 FEET AWAY FROM DRAINAGE AREAS. DO NOT DEPOSIT SLASH AND DEBRIS INSIDE THE TIMBER SALE UNIT BOUNDARIES. MATERIAL WITHIN THE TIMBER SALE UNIT BOUNDARIES SHALL BE HAULED TO A DESIGNATED DISPOSAL AREA OR SCATTERED IN THE LOCATIONS OUTSIDE THE UNIT BOUNDARIES. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION.

3. ALL VEGETATION SHALL BE CUT WITHIN 6" OF THE GROUND LINE OR PROTRUDING SOLID OBJECT BEYOND THE BOTTOM OF THE DITCH AND THE ROADWAY RECONDITIONING LIMITS.

4. ALL CULVERT CATCH BASINS SHALL BE BRUSHED A MINIMUM OF 10 FOOT RADIUS FROM THE CULVERT INLET.

5. UPON COMPLETING MECHANICAL OR HAND BRUSHING OPERATIONS, ALL STICKS AND LIMBS LARGER THAN 1" IN DIAMETER AND 18" LONG SHALL BE REMOVED FROM THE DITCHLINE AND ROADSIDE AND SCATTERED 10' BEYOND THE ROADWAY.

U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE PACIFIC NORTHWEST REGION–6		DATE: August 1, 2014
		SHEET: 22 OF: 35
APPROVED:	DWG NO: 23050	DRAWN BY: U. S. FOREST SERVICE
Title: UPPER FINNEY THIN RE–OFFER		FILE NAME: ROADSIDE BRUSHING



TYPICAL ROADWAY SECTION

NOT TO SCALE

NOTES

**1. Normal construction standards shown. Existing conditions in the field may vary depending on the actual shoulder and ditch constructed and maintained.

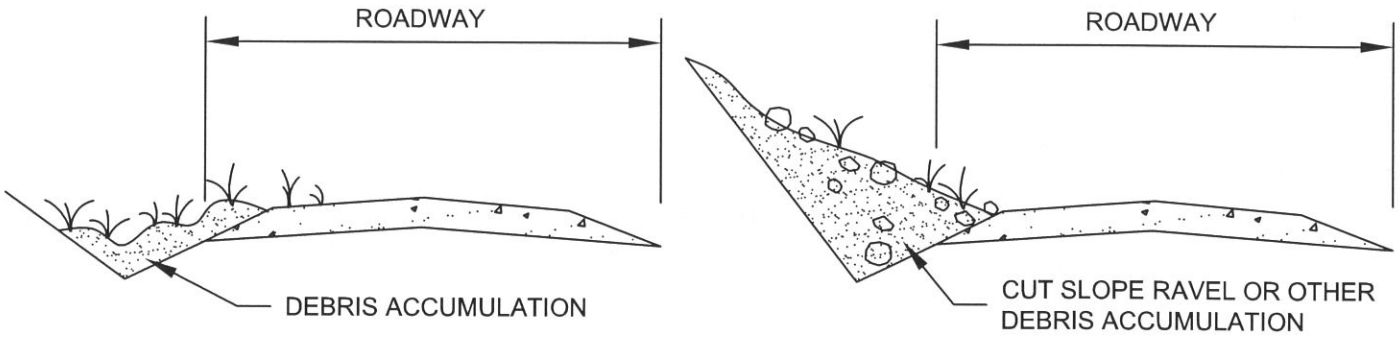
2. All culvert inlets, catch basins, and outlets shall be cleaned to allow maximum water flow.

3. All culvert outlet ditches and roadway lead-off ditches shall be cleaned and shaped to allow maximum water flow.

4. All unsuitable, excess, and oversize material generated from reconditioning the ditch or roadway shall be removed and distributed uniformly on the fill slope.

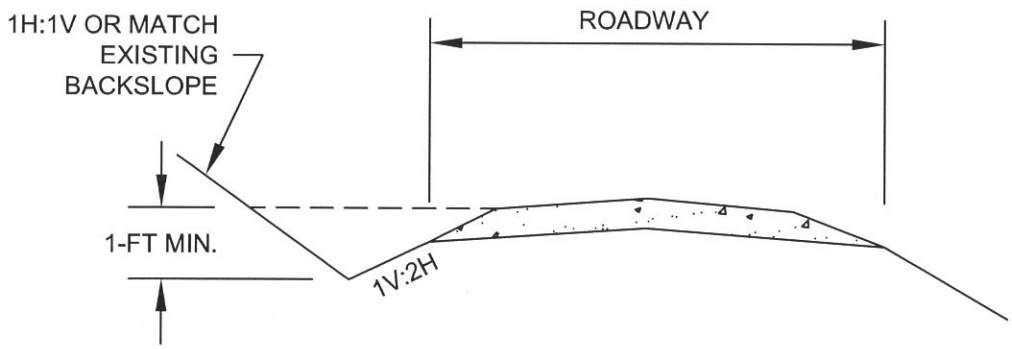
5. Roadway shoulder berms shall not be allowed.

FOREST SERVICE US DEPARTMENT OF AGRICULTURE	U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE PACIFIC NORTHWEST REGION–6	DATE: JULY 21, 2014
		SHEET: 23 OF: 35
	APPROVED: / DWG NO: 30322	DRAWN BY: U. S. FOREST SERVICE
Title: UPPER FINNEY THIN RE–OFFER		FILE NAME: ROAD RECONDITIONING



TYPICAL DITCH DEBRIS/OBSTRUCTIONS

NOT TO SCALE



TYPICAL COMPLETED DITCH

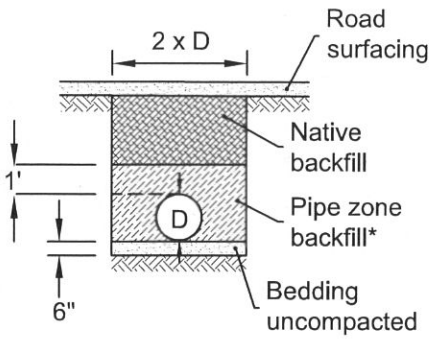
NOT TO SCALE

NOTES:

1. RESTORE DITCHES (VARIOUS TYPES) IDENTIFIED AND STAKED IN THE FIELD TO THE MINIMUM DIMENSIONS SHOWN OR MATCH EXISTING DITCH LINES.
2. LARGE ROCK, SOIL, WOOD AND OTHER MATERIALS SHALL BE REMOVED.
3. SUITABLE MATERIAL (ROCKS UP TO 2" IN GREATEST DIMENSION), MAY BE BLENDED INTO THE ROADBED OF NATIVE SURFACES AND SHOULDERS, OR PLACED IN DESIGNATED LOCATION(S) WHERE EXCESS MATERIAL IS DEPOSITED.
4. EXCESS MATERIALS TEMPORARILY STORED ON THE DITCH-SLOPE OR SHOULDER SHALL BE REMOVED DAILY.
5. LEAD-OFF DITCHES SHALL BE SHAPED AND SLOPED TO DRAIN AWAY FROM THE TRAVELED-WAY.
6. LOAD AND HAUL WASTE MATERIAL TO THE DESIGNATED DISPOSAL AREAS AS FLAGGED. CONSOLIDATE BY LUMPING WASTE MATERIAL INTO 1 LARGE PILE AND COMPACT PILE WITH TRACK WHEELED EQUIPMENT PRIOR TO SEED AND MULCHING.

U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE PACIFIC NORTHWEST REGION–6		DATE: August 2, 2013
		SHEET: 24 OF: 35
APPROVED:	DWG NO: 20419	DRAWN BY: U. S. FOREST SERVICE
Title: UPPER FINNEY THIN RE–OFFER		FILE NAME: DITCH RECONSTRUCTION

CULVERT TYPES

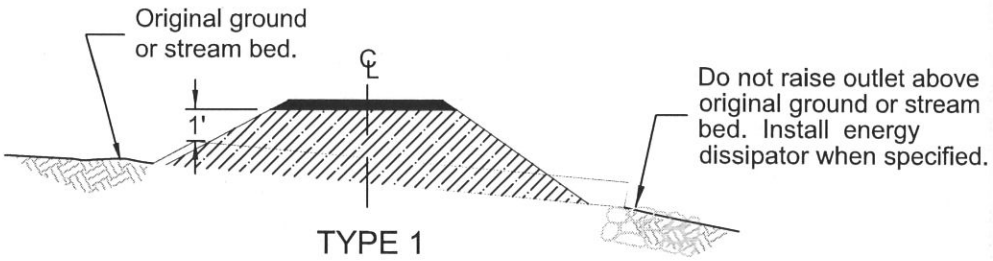


* Maximum particle size is 3", except 1-1/2" for plastic pipe

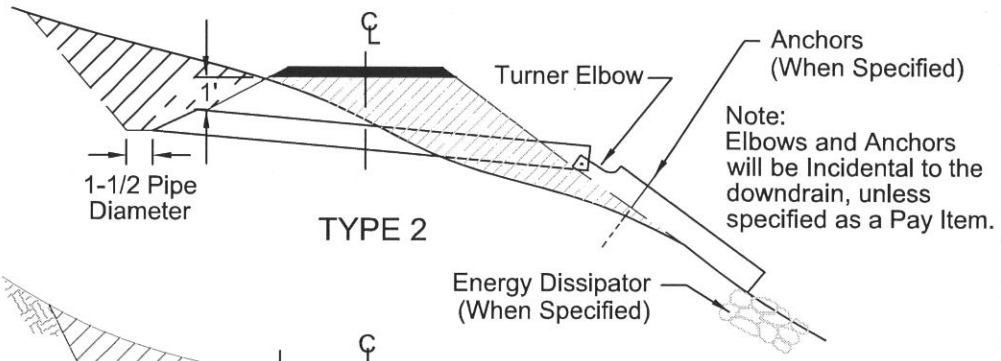
CULVERT INSTALLATION

NOTE: Pipe beds shall be constructed with a positive camber (1% of pipe length, 2% max.) before placing the pipe.

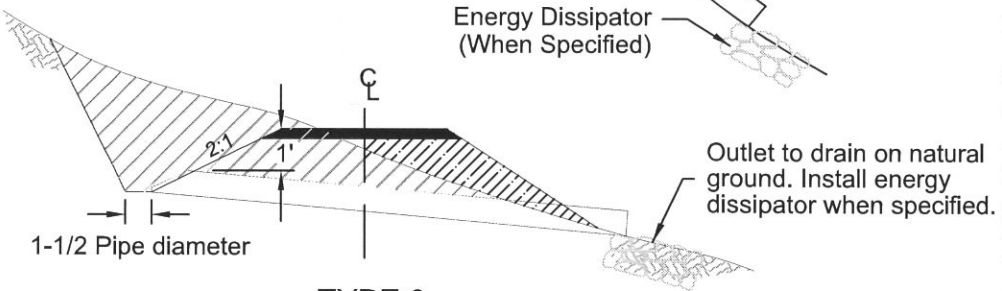
NOTE: Downhill-most section of pipe shall be full length.



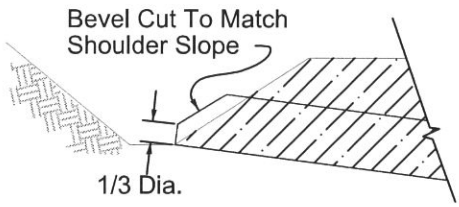
TYPE 1



TYPE 2

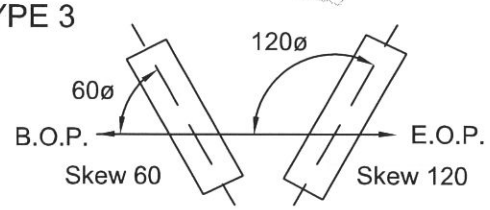


TYPE 3

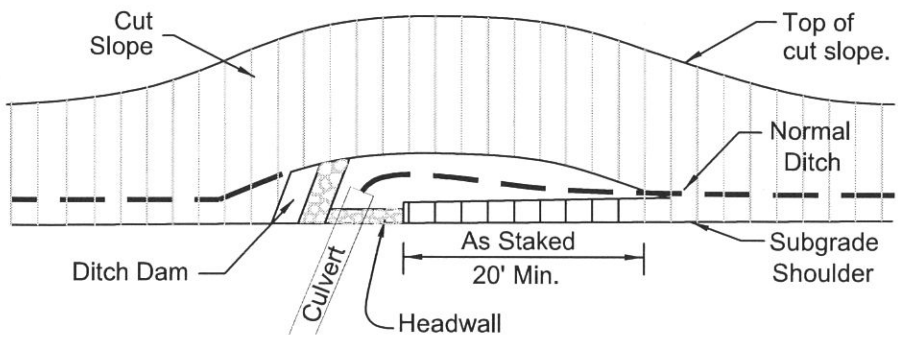


NOTE: All culverts shall be beveled at the inlet.

BEVELED INLET DETAIL



SKEW DIAGRAM



INLET CATCH BASIN DETAIL-PLAN VIEW

TYPE 2 & 3 CULVERT INSTALLATION

ANCHOR DESCRIPTION

Anchors (Each) shall consist of two 6' steel fence posts 1.5 lb./foot and No. 9 galvanized wire.
Posts shall be driven a minimum of 3' into the ground.
3 strands of wire shall be twisted together and encompass the entire circumference of the downpipe.
The number of Anchors sets per installation will be specified on the drawings.
1 set of Anchors will be required per 20' length of Plastic Downpipe.

NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE PACIFIC NORTHWEST REGION–6		DATE: AUGUST 8, 2014
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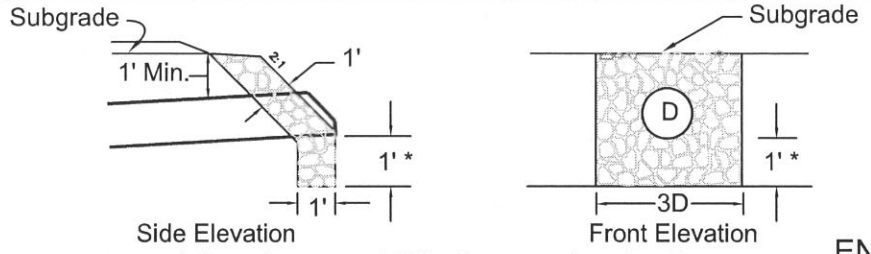
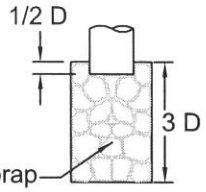
APPROVED:	DWG NO: 60275A/B/C–1	DRAWN BY: U. S. FOREST SERVICE
Title: UPPER FINNEY THIN RE–OFFER		FILE NAME: DRAINAGE CONSTRUCTION DETAILS

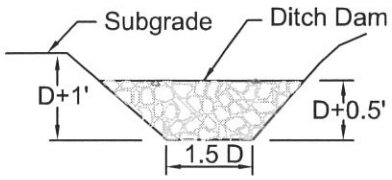


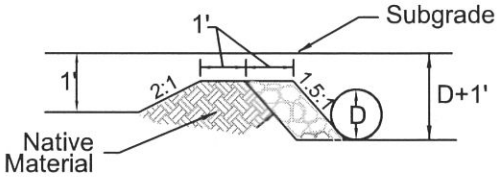
* For culvert over 24" in diameter otherwise 0'.

HAND-PLACED RIPRAP HEADWALL

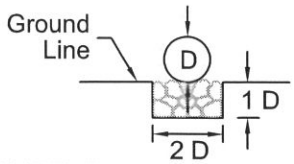


ENERGY DISSIPATOR PLAN VIEW



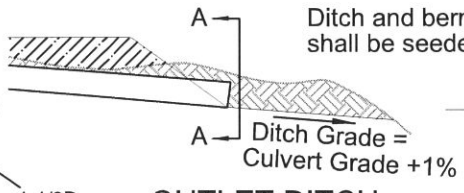


PLACED RIPRAP DITCH DAM

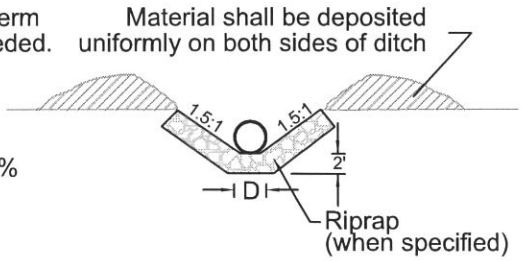


NOTE: Energy dissipator shall be installed prior to setting the culvert. Apron surface shall be left with protruding riprap for velocity break.

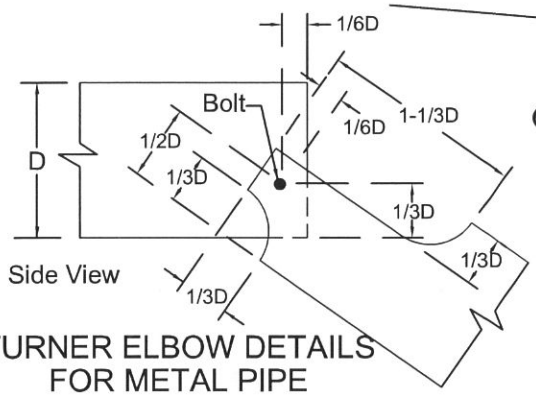
ENERGY DISSIPATOR ELEV. VIEW



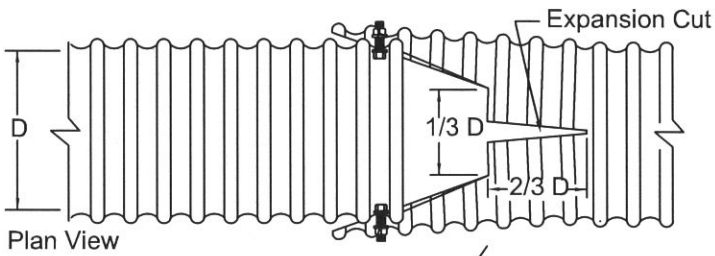
OUTLET DITCH

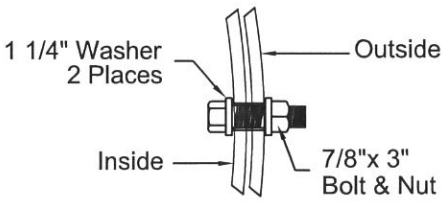


SECTION A-A OUTLET/LEAD-OFF DITCH

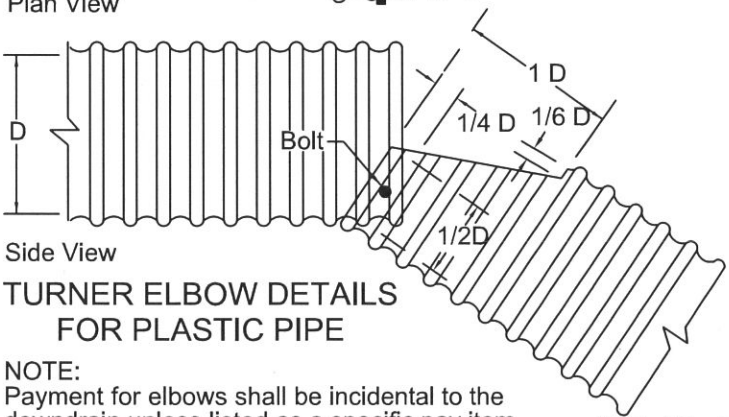


TURNER ELBOW DETAILS FOR METAL PIPE

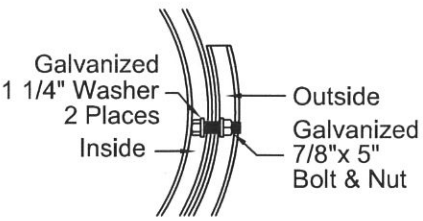




BOLT DETAIL FOR METAL PIPE



TURNER ELBOW DETAILS FOR PLASTIC PIPE



BOLT DETAIL FOR PLASTIC PIPE

NOTE:
Payment for elbows shall be incidental to the downdrain unless listed as a specific pay item.

NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE PACIFIC NORTHWEST REGION–6		DATE: August 2, 2013
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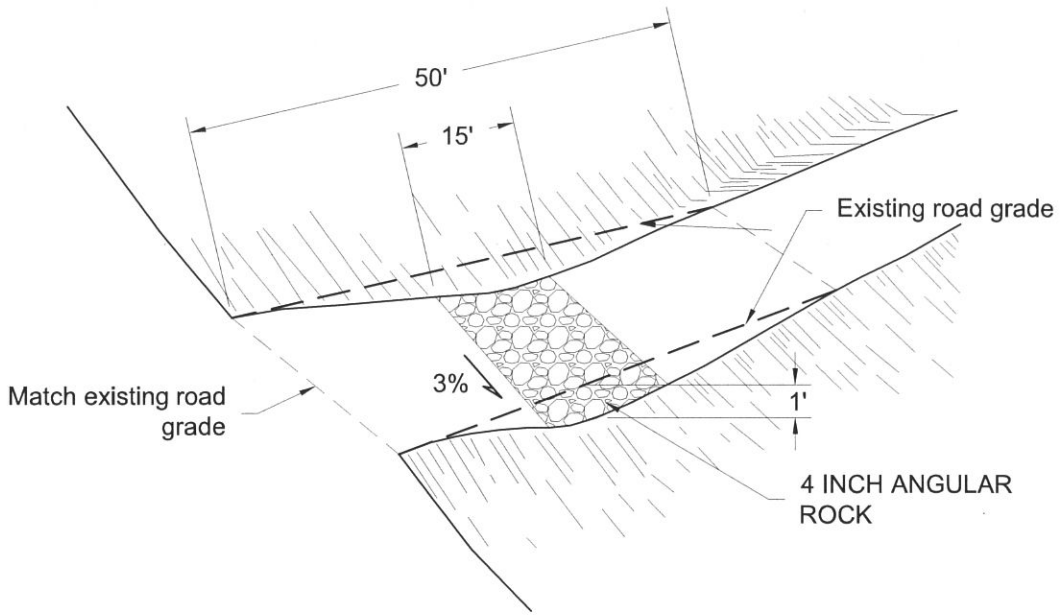
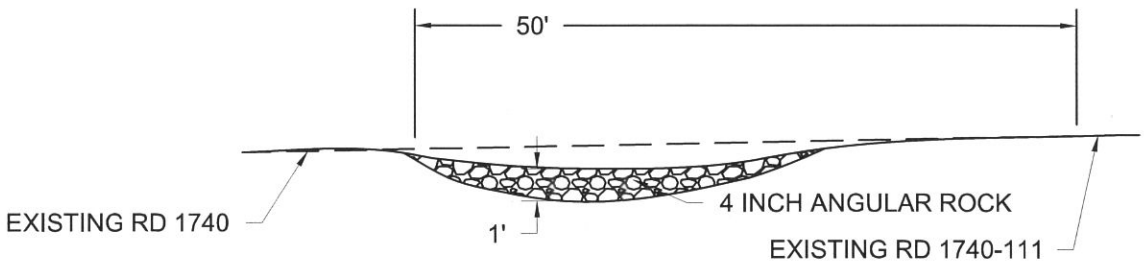
APPROVED:	DWG NO: 60275A/B/C–2	DRAWN BY: U. S. FOREST SERVICE
Title: UPPER FINNEY THIN RE–OFFER		FILE NAME: DRAINAGE CONSTRUCTION DETAILS



DRIVABLE DIP 3D TYPICAL

NOT TO SCALE



DRIVABLE DIP ELEVATION VIEW

NOT TO SCALE

NOTES:

1. Finish dip elevation shall be constructed 1' below existing road grade.
2. Use 4" angular free draining rock 1' thick to line the bottom of the dip for the full width of the roadway.
3. Dip shall match alignment of exisitng dips/swales adjacent to the roadway.

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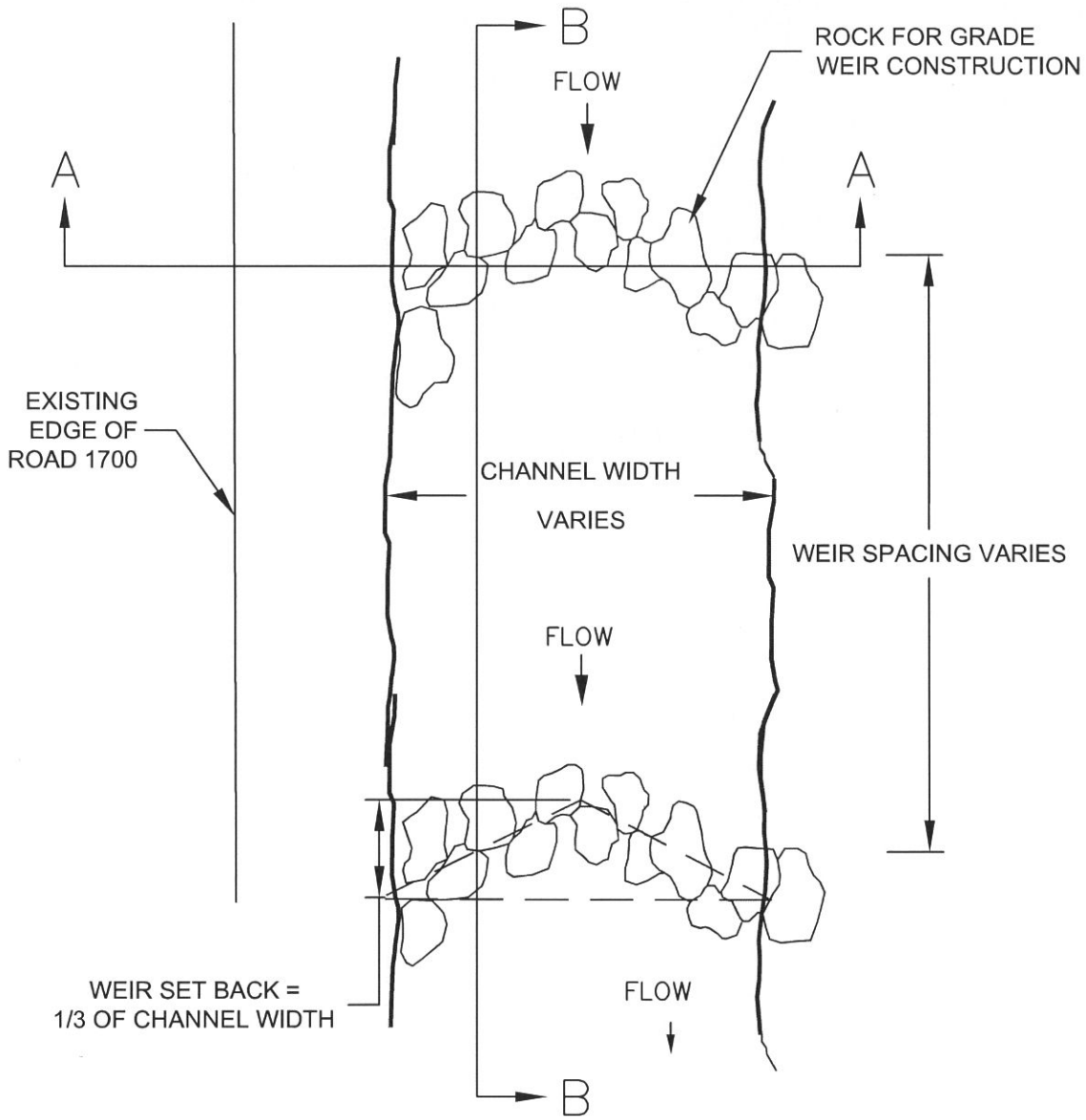
APPROVED:	DWG NO: 20420	DRAWN BY: U. S. FOREST SERVICE
Title: UPPER FINNEY THIN RE–OFFER		FILE NAME: DRIVABLE DIP RD 1740–111

GRADE CONTROL WEIRS (1/2)

RD 1700 MP 13.28



NOT TO SCALE

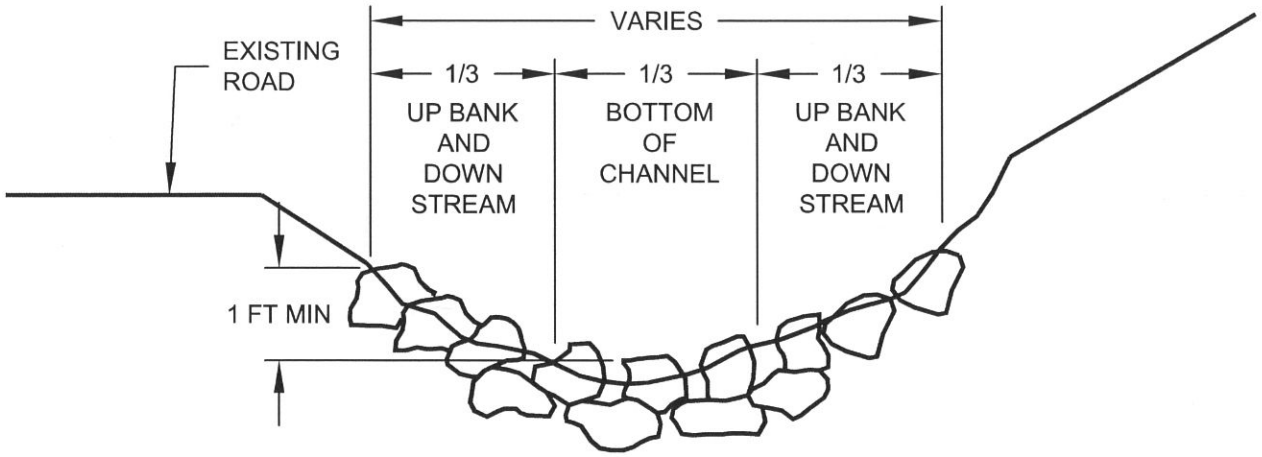
NOTES:

1. ROCK USED TO CONSTRUCT WEIRS SHALL BE 1–2 FT DIAMETER ANGULAR ROCK FROM FINNEY PIT. REQUIRES SORTING.
2. WEIRS CAN BE CONSTRUCTED BY TRENCH AND FILL METHODS BUT ALL ROCK SHALL BE KEYED IN WITH IMPACT PRESSURE PER SPEC 251.05.
3. EACH WEIR LOCATION WILL BE STAKED IN THE FIELD BY FOREST SERVICE PRIOR TO CONSTRUCTION OF WEIRS.
4. BEST MANAGEMENT PRACTICES FOR DEWATERING AND EROSION CONTROL ARE APPLICABLE.

U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE PACIFIC NORTHWEST REGION–6	DATE: JULY 29, 2014	
	SHEET: 28 OF: 35	
APPROVED:	DWG NO: 25101B–1	DRAWN BY: U. S. FOREST SERVICE
Title: UPPER FINNEY THIN RE–OFFER		FILE NAME: GRADE CONTROL WEIR 1 OF 2

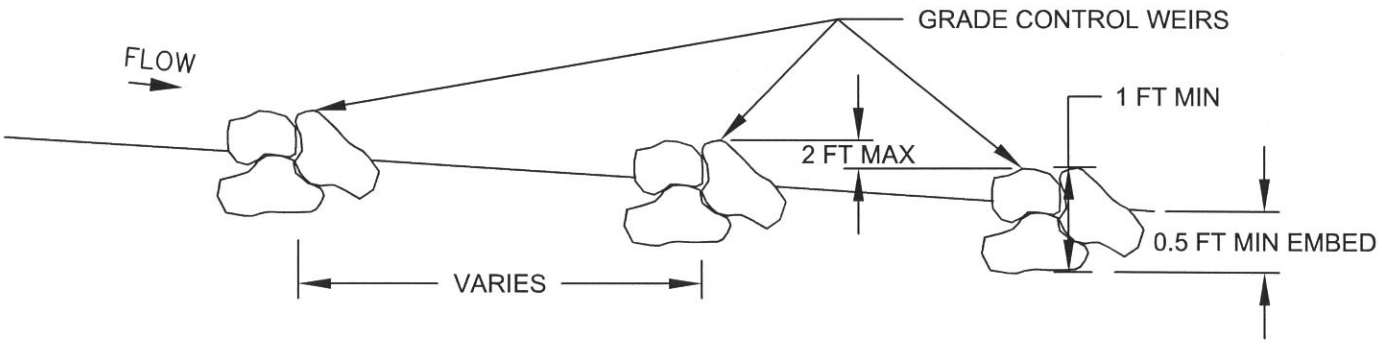
GRADE CONTROL WEIRS (2/2)

RD 1700 MP 13.28



CROSS SECTION VIEW A–A

NOT TO SCALE



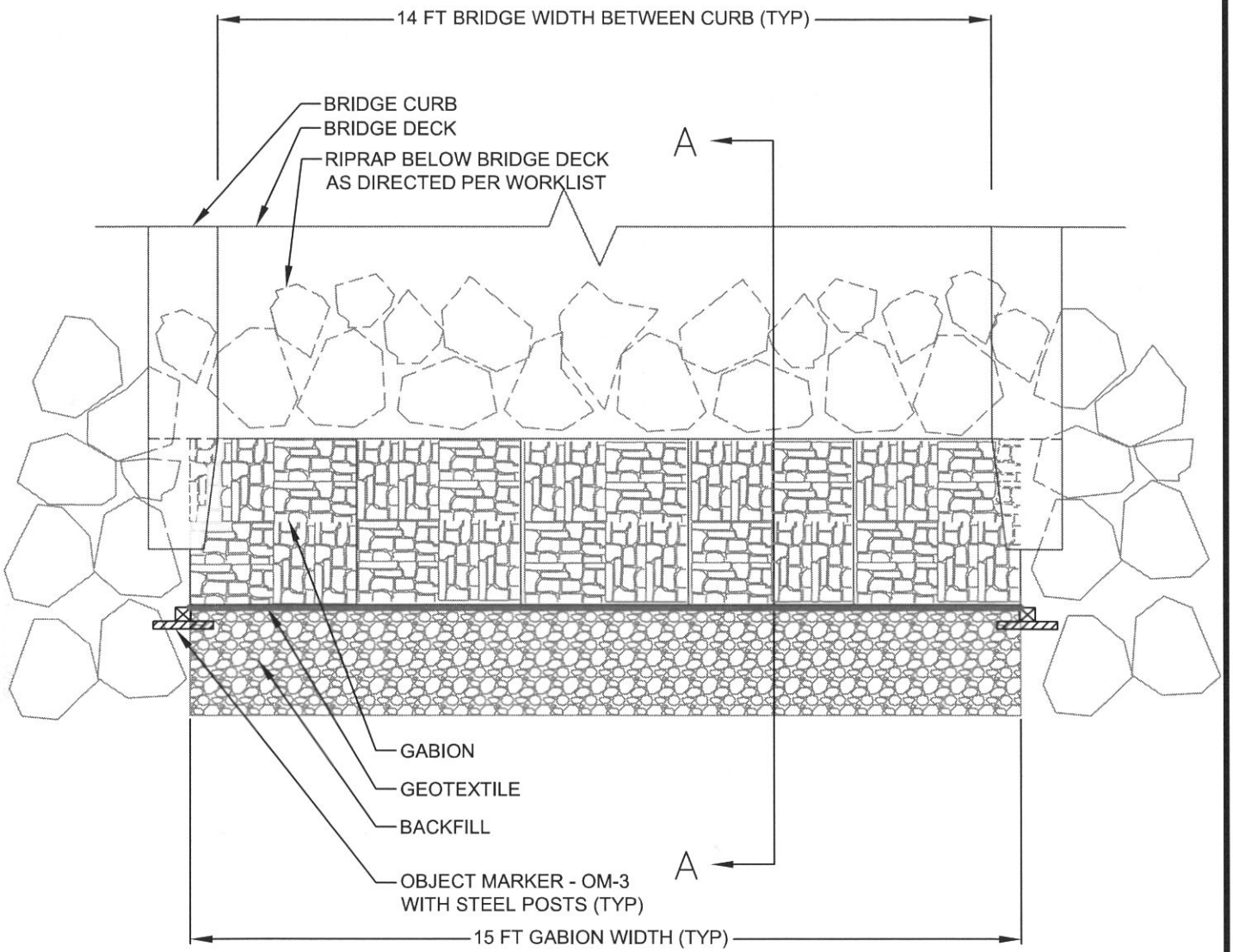
PROFILE VIEW B–B

NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE PACIFIC NORTHWEST REGION–6		DATE: JULY 29, 2014
		SHEET: 29 OF: 35
APPROVED:	DWG NO: 25101B–1	DRAWN BY: U. S. FOREST SERVICE
Title: UPPER FINNEY THIN RE–OFFER		FILE NAME: GRADE CONTROL WEIR 2 OF 2

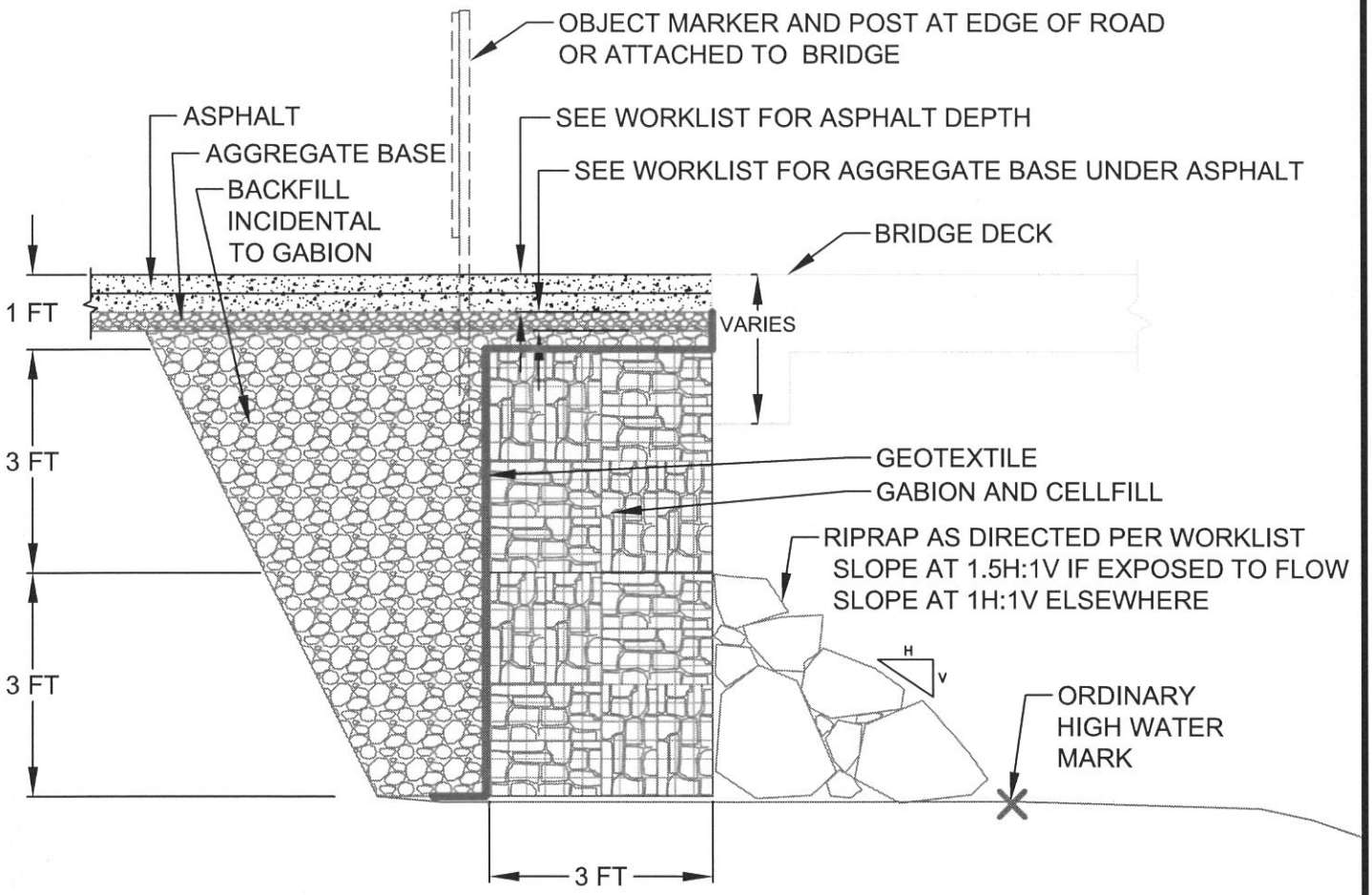
GABION PLAN DURING GABION CELLFILLING

RD 1700 MP 11.5



U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE PACIFIC NORTHWEST REGION–6		DATE: AUG 7, 2014
		SHEET: 30 OF: 35
APPROVED:	DWG NO: 25302–1	DRAWN BY: U. S. FOREST SERVICE
Title: UPPER FINNEY THIN RE–OFFER		FILE NAME: GABION SHEET 1 OF 2

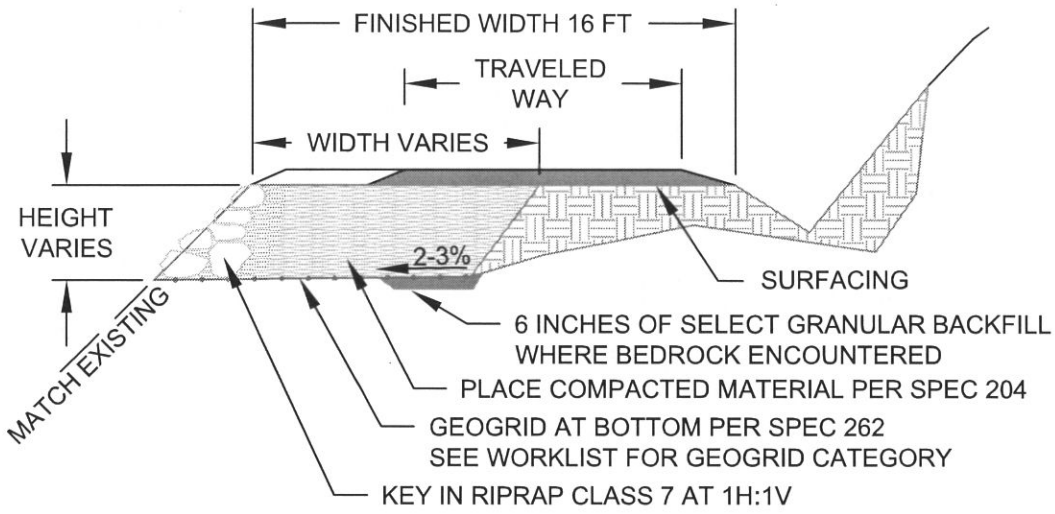
GABION SECTION A-A



NOTES:

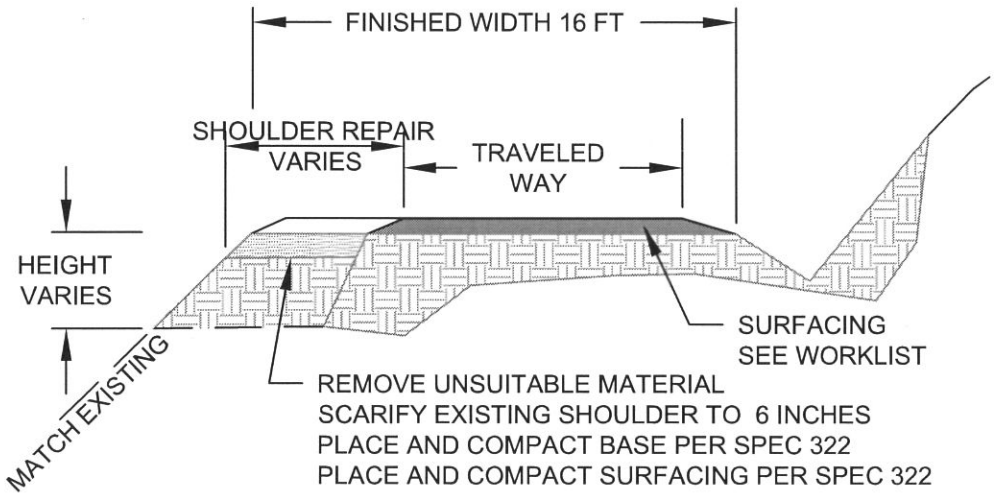
1. COMPACTION - BACKFILL AND CRUSHED AGGREGATE BASE COURSE TO BE COMPACTED TO 95% OF OPTIMAL COMPACTION ACCORDING TO AASHTO T180.
2. GABIONS SHALL BE 9-GAUGE GALVANIZED WELDED-WIRE CONSTRUCTION.
3. GEOTEXTILE 9 OZ. NON-WOVEN FABRIC SHALL BE USED TO SEPARATE BACKFILL AND BASE COURSE FROM GABIONS.
4. RIPRAP SHALL NOT EXTEND BEYOND THE EXISTING TOE OF FILL/RIPRAP. DO NOT PLACE RIPRAP BELOW THE DESIGNATED ORDINARY HIGHWATER MARK.

U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE PACIFIC NORTHWEST REGION–6		DATE: AUG 7, 2014 SHEET: 31 OF: 35
APPROVED:	DWG NO: 25302–2	DRAWN BY: U. S. FOREST SERVICE
Title: UPPER FINNEY THIN RE–OFFER		FILE NAME: GABION SHEET 2 OF 2



SINGLE-LAYER GEOGRID/RIPRAP EMBANKMENT REPAIRS

RD 1735 MP 1.00, 1.10 1.8
NOT TO SCALE



MINOR SHOULDER EMBANKMENT REPAIRS

RD 1735 MP 0.35
NOT TO SCALE

NOTES

1. CONSERVE AND USE SUITABLE EXCAVATED MATERIAL AT REPAIRS.

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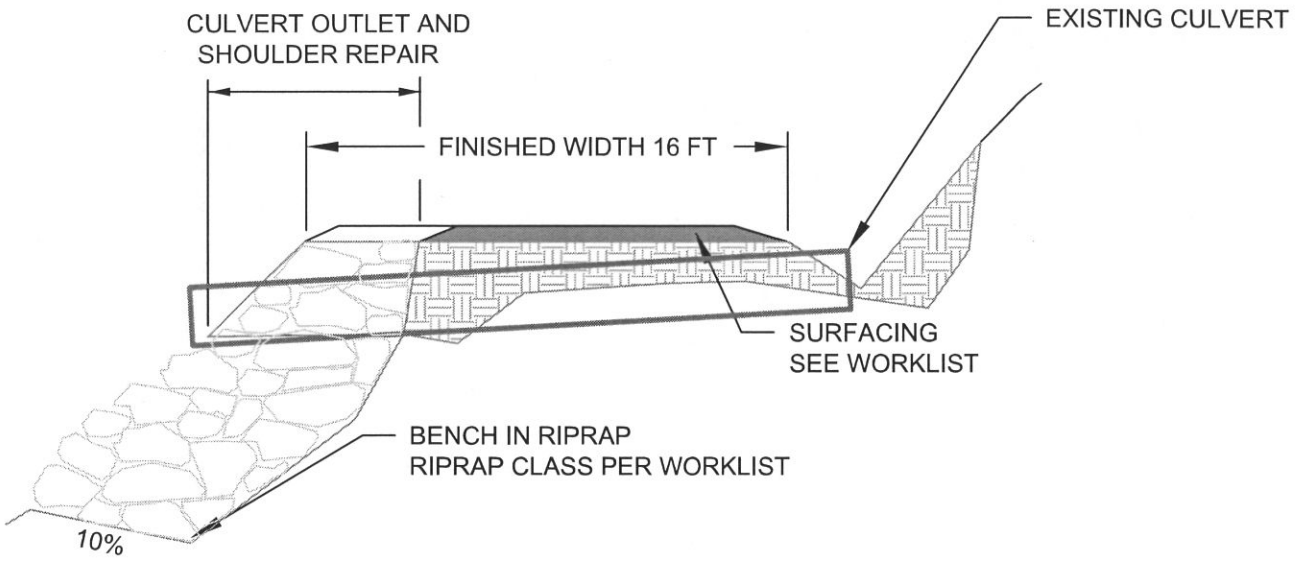
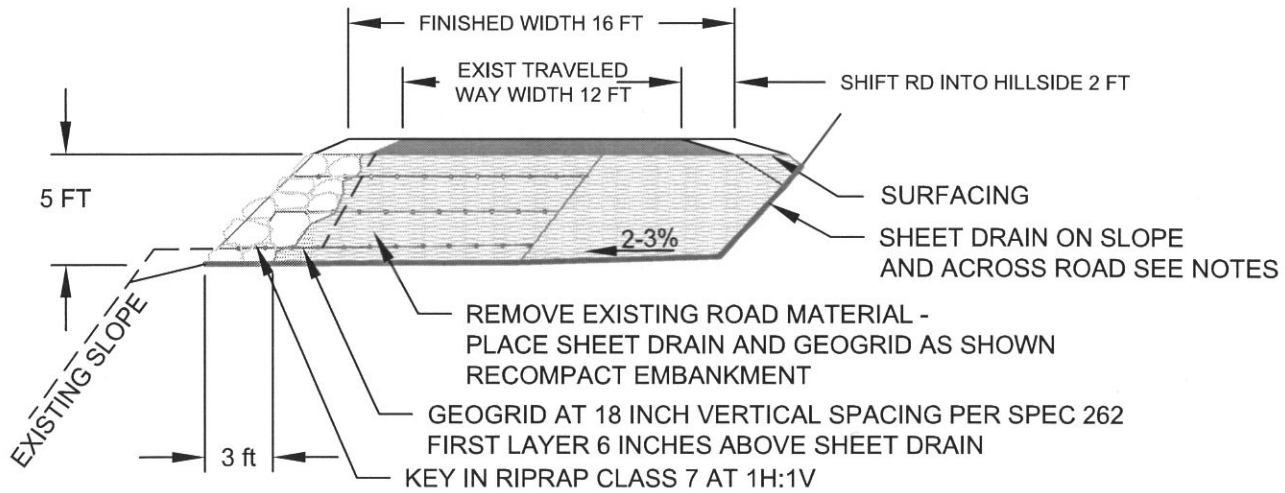
Title: UPPER FINNEY THIN RE–OFFER		FILE NAME: RD 1735 EMBANKMENT REPAIRS



CULVERT SCOUR REPAIR AND RIPRAP WALL

RD 1735 MP 0.35, RD 1800 MP 13.85
NOT TO SCALE



3-LAYER GEOGRID/RIPRAP/SHEET DRAIN EMBANKMENT REPAIR

RD 1800 MP 18.55
NOT TO SCALE

NOTES

1. CONSERVE AND USE SUITABLE EXCAVATED MATERIAL AT REPAIRS.
2. PLACE UNSUITABLE EXCAVATED MATERIAL AT ROAD 1740 FINNEY PIT.
3. SHEET DRAIN TO BE AMERICAN WICK DRAIN SITEDRAIN P-180 OR APPROVED EQUIVALENT. SHEET DRAIN SHALL BE PLACED DRAIN SIDE DOWN ON SLOPE AND UP ON ROAD.

FOREST SERVICE US DEPARTMENT OF AGRICULTURE	U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE PACIFIC NORTHWEST REGION–6	DATE: AUGUST 7, 2014
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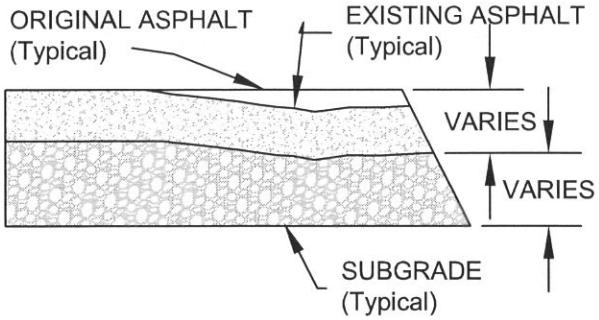
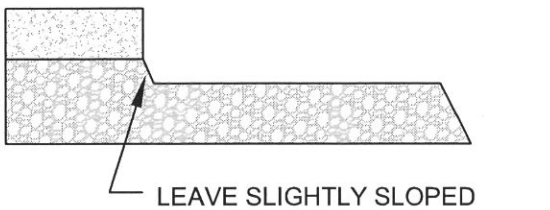
	APPROVED: / DWG NO: 25101/26201–2	DRAWN BY: U. S. FOREST SERVICE
Title: UPPER FINNEY THIN RE–OFFER		FILE NAME: RD 18 EMBANKMENT REPAIRS

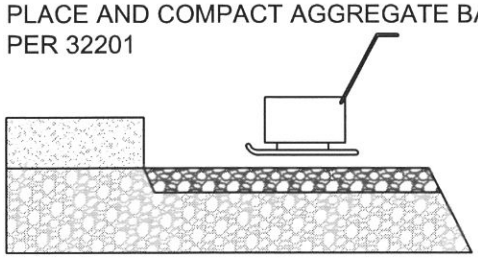
1. ORIGINAL ASPHALT (Typical)



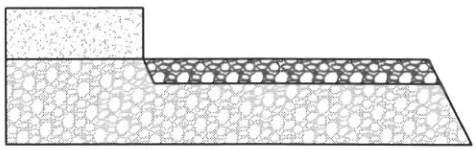
2. SAW CUT ASPHALT EDGES TO A CLEAN LINE OUTSIDE OF FAILURE. EXCAVATE AGGREGATE TO AREA OF FIRM SUPPORT. DISPOSAL PER GENERAL NOTES.



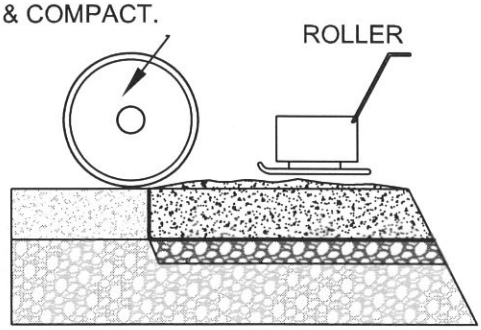
3. PLACE AND COMPACT AGGREGATE BASE PER 32201



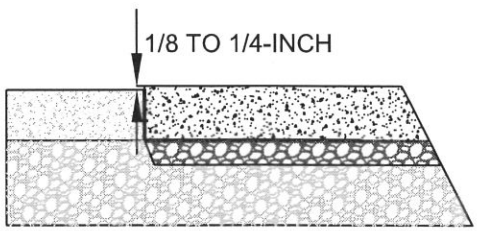
4. APPLY TACK/PRIME COAT TO ASPHALT AND AGGREGATE.



5. PLACE FULL DEPTH ASPHALT MIXTURE & COMPACT.



6. FINISHED COMPACTED ELEVATION SHALL BE 1/8 TO 1/4-INCH ABOVE THE EDGES OF THE EXISTING ASPHALT.

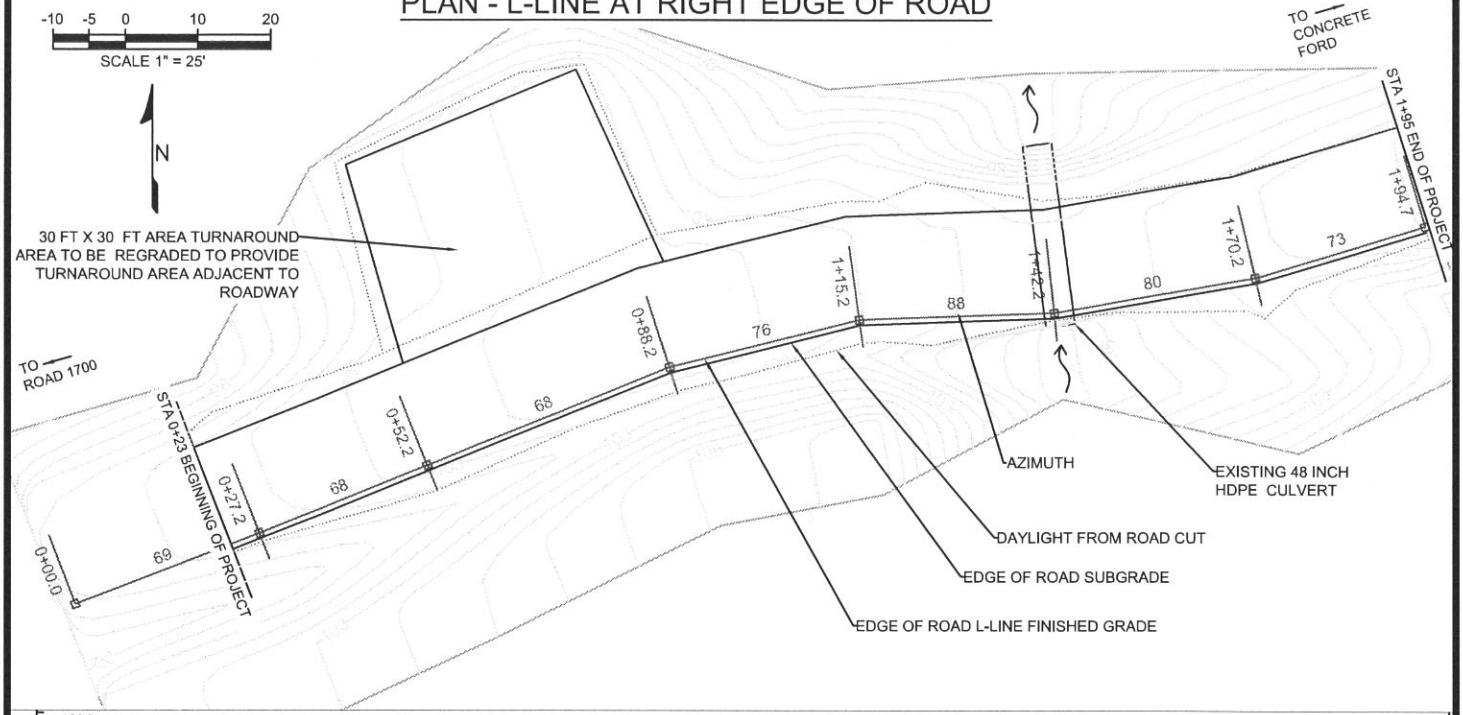


TYPICAL HOT-MIX ASPHALT PATCHING AND PAVING

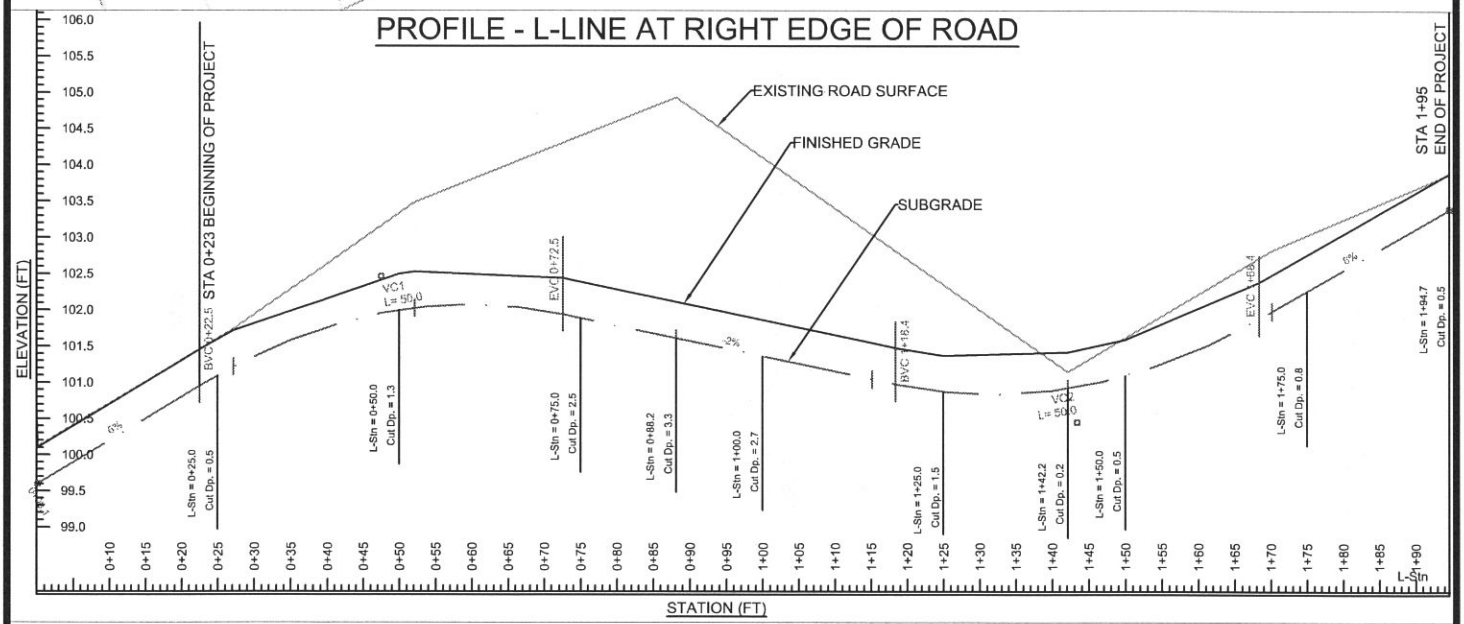
LOCATIONS AS SHOWN ON WORKSHEETS
NOT TO SCALE

U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE PACIFIC NORTHWEST REGION–6		DATE: August 1, 2014 SHEET: 34 OF: 35
APPROVED:	DWG NO: 40401	DRAWN BY: U. S. FOREST SERVICE
Title: UPPER FINNEY THIN RE–OFFER		FILE NAME: ASPHALT PAVEMENT REPAIRS

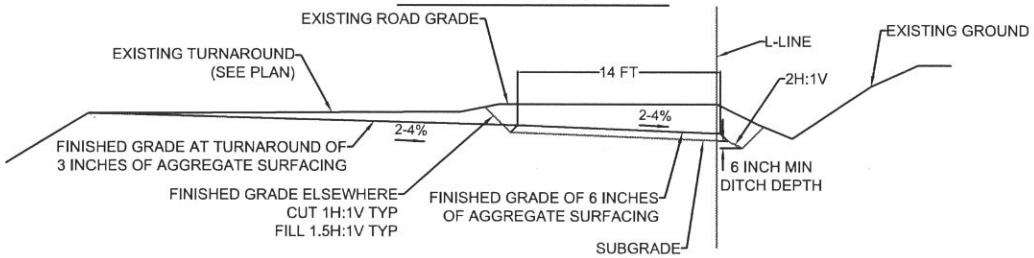
PLAN - L-LINE AT RIGHT EDGE OF ROAD



PROFILE - L-LINE AT RIGHT EDGE OF ROAD



TYPICAL SECTION



U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE PACIFIC NORTHWEST REGION–6		DATE: JULY 30, 2014
		SHEET: 35 OF: 35
APPROVED:	DWG NO: 20401B	DRAWN BY: U. S. FOREST SERVICE
Title: UPPER FINNEY THIN RE–OFFER		FILE NAME: 1735 MP 0.66 RECONSTRUCTION